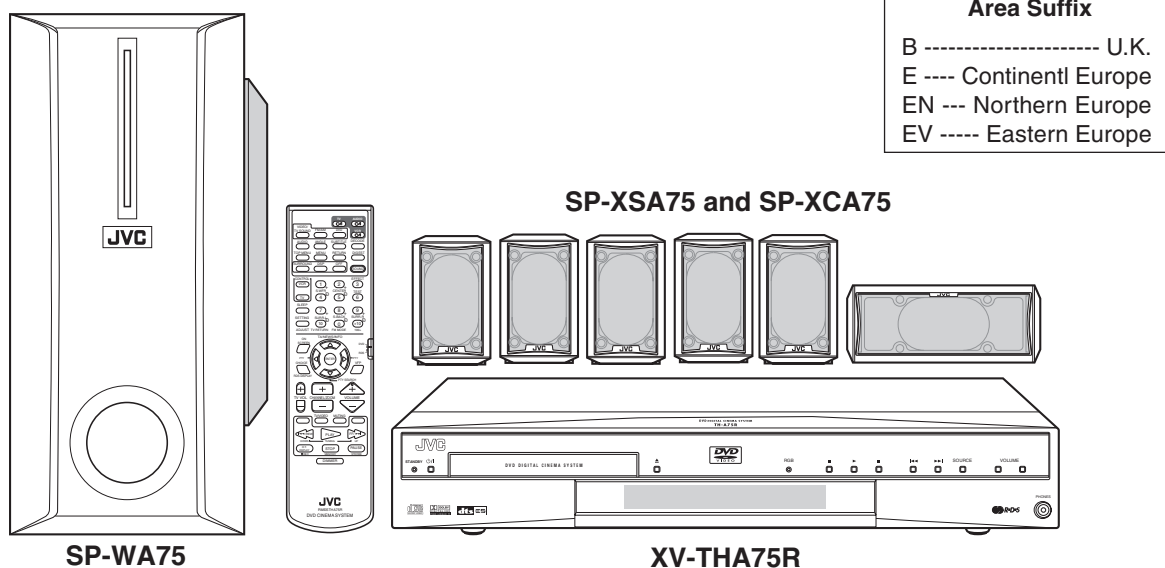


# JVC

## SERVICE MANUAL

### DVD DIGITAL CINEMA SYSTEM

## TH-A75R



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*MC-Service*

## SECTION 1

### Important Safety Precautions

#### 1.1 Safety Precautions

- (1) This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturers warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ( $\Delta$ ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
- (4) The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.
- (5) Leakage shock hazard testing)
 

After reassembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

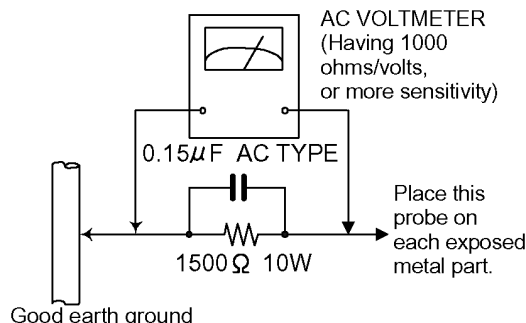
  - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
  - Alternate check method
 

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohm 10W resistor paralleled by a 0.15  $\mu$ F AC-type capacitor between an

exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



#### 1.2 Warning




- (1) This equipment has been designed and manufactured to meet international safety standards.
- (2) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
- (3) Repairs must be made in accordance with the relevant safety standards.
- (4) It is essential that safety critical components are replaced by approved parts.
- (5) If mains voltage selector is provided, check setting for local voltage.

#### 1.3 Caution

**Burrs formed during molding may be left over on some parts of the chassis.**


**Therefore, pay attention to such burrs in the case of pre-forming repair of this system.**

#### 1.4 Critical parts for safety

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (  ), diode (  ) and ICP (  ) or identified by the " $\Delta$ " mark nearby are critical for safety.

When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

## 1.5 Safety Precautions (U.K only)

- (1) This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits.
- (2) Any unauthorised design alterations or additions will void the manufacturer's guarantee; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
- (3) Essential safety critical components are identified by (  ) on the Parts List and by shading on the schematics, and must never be replaced by parts other than those listed in the manual. Please note however that many electrical and mechanical parts in the product have special safety related characteristics. These characteristics are often not evident from visual inspection. Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the Service Manual and may create shock, fire, or other hazards.
- (4) The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

### 1.5.1 Warning

- (1) Service should be performed by qualified personnel only.
- (2) This equipment has been designed and manufactured to meet international safety standards.
- (3) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
- (4) Repairs must be made in accordance with the relevant safety standards.
- (5) It is essential that safety critical components are replaced by approved parts.
- (6) If mains voltage selector is provided, check setting for local voltage.



**CAUTION** Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

## 1.6 Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

### 1.6.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD players.

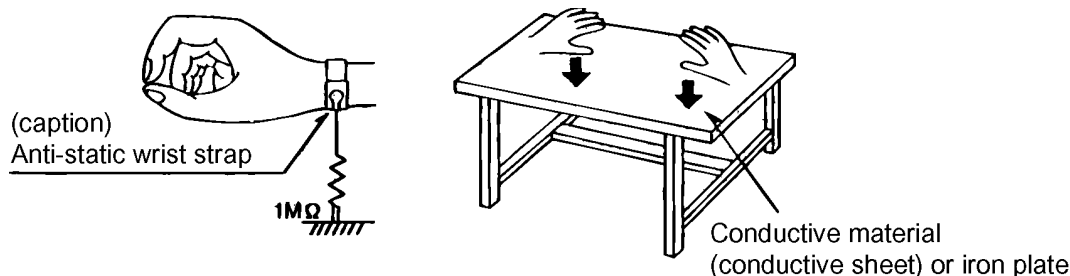
Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup

- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

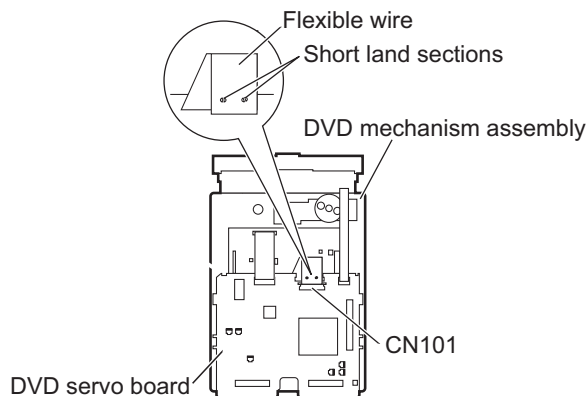
## 1.7 Handling the traverse unit (optical pickup)

- (1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
- (2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
- (3) Handle the flexible cable carefully as it may break when subjected to strong force.
- (4) It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

## 1.8 Attention when traverse unit is decomposed

**\*Please refer to "Disassembly method" in the text for the DVD pickup unit.**

- Apply solder to the short land sections before the flexible wire is disconnected from the connector CN101 on the DVD servo board. (If the flexible wire is disconnected without applying solder, the DVD pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land sections after connecting the flexible wire.





## 1.9 Important for laser products

- (1) **CLASS 1 LASER PRODUCT**
- (2) **DANGER** : Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.
- (3) **CAUTION** : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
- (4) **CAUTION** : The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
- (5) **CAUTION** : If safety switches malfunction, the laser is able to function.
- (6) **CAUTION** : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

**⚠ CAUTION**  
Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

### VARNING

Osynlig laserstrålning är denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

### VARO

Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

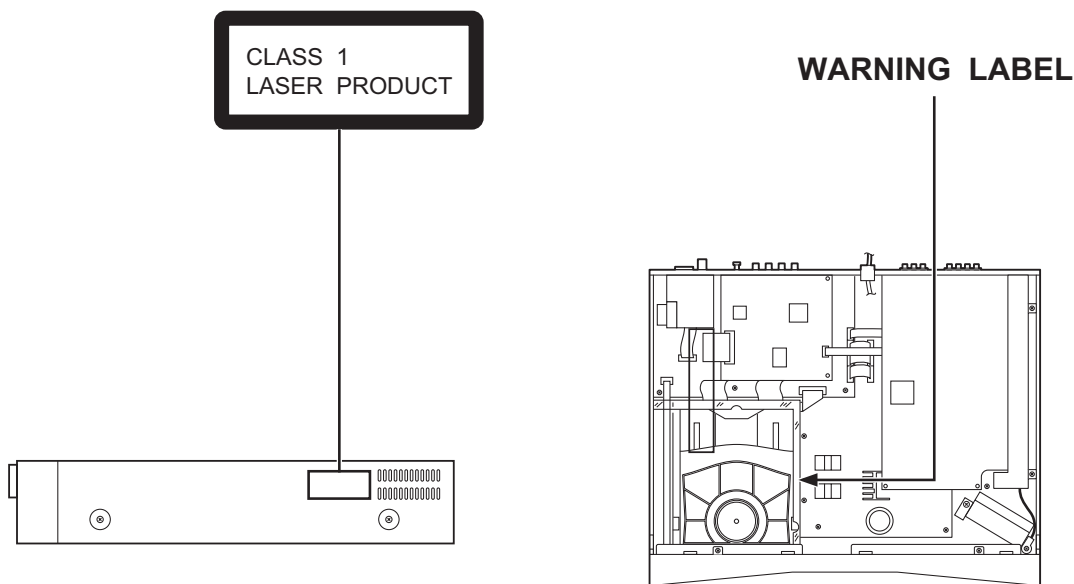
### ADVARSEL

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

### ADVARSEL

Usynlig laserstråling ved åpning, når sikkerhetsbryteren er avsløtt. unngå utsettelse for stråling.

## REPRODUCTION AND POSITION OF LABELS



## SECTION 2

### Disassembly method

#### 2.1 Main body section

##### 2.1.1 Removing the top cover (See Figs.1 to 4.)

- (1) From the right and left sides of the main body, remove the four screws A attaching the top cover. (See Figs.1 and 2.)
- (2) From the back side of the main body, remove the two screws B attaching the top cover. (See Fig.3.)
- (3) Lift the rear section of the top cover, slide the top cover slightly in the direction of the arrow. (See Fig.4.)
- (4) Disengage the engagement sections a of the top cover from the main body. (See Fig.4.)

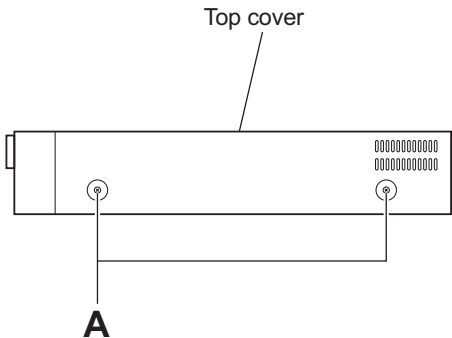


Fig.1

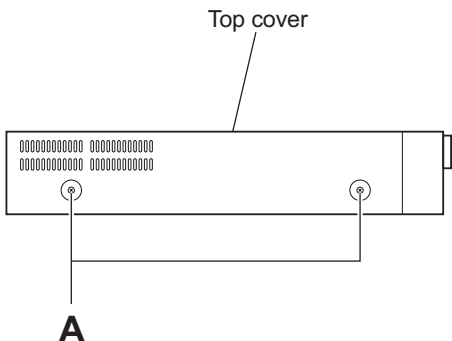


Fig.2

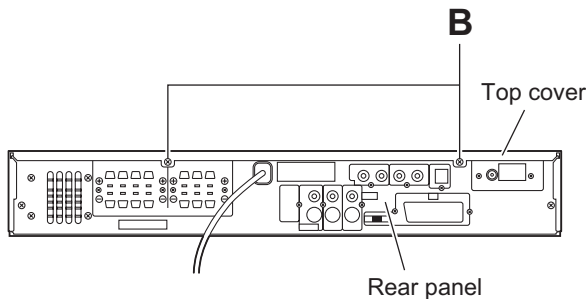


Fig.3

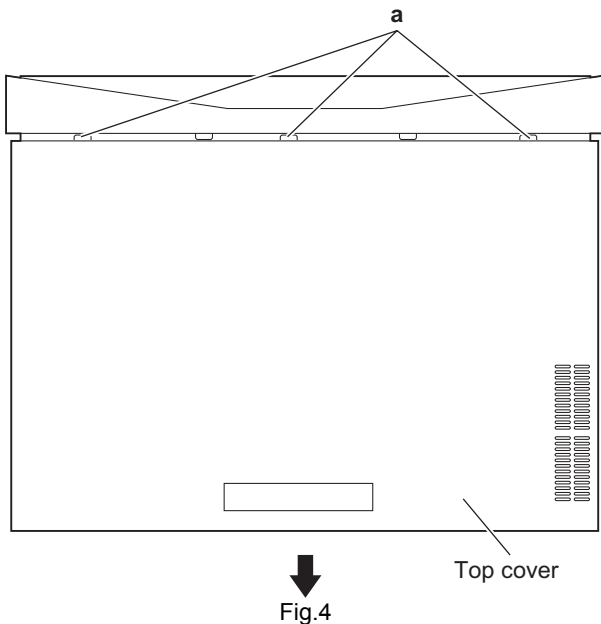


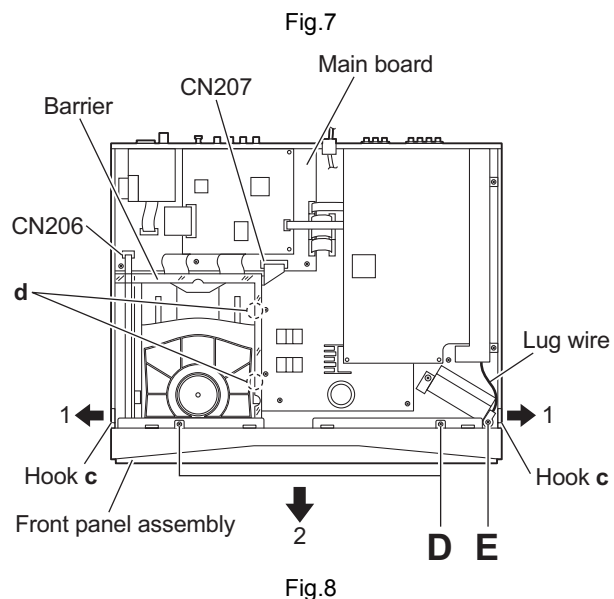
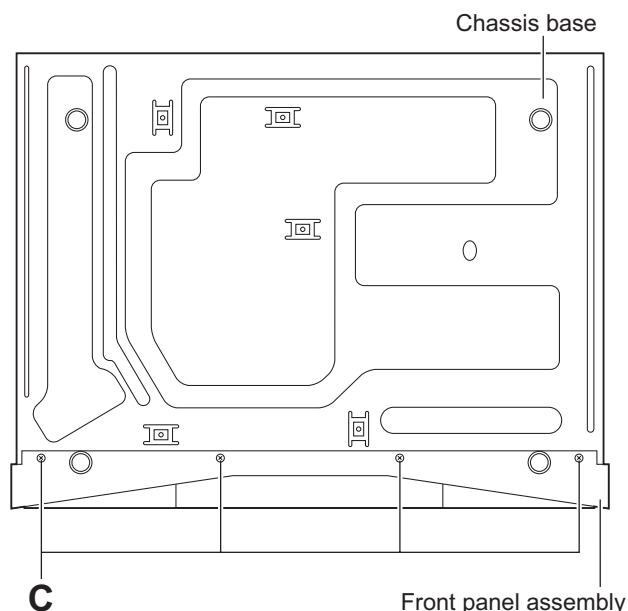
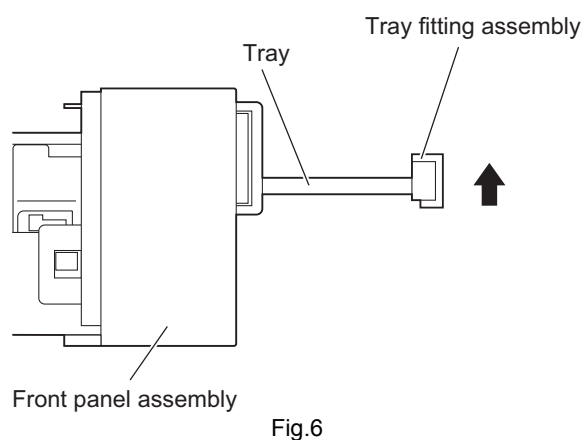
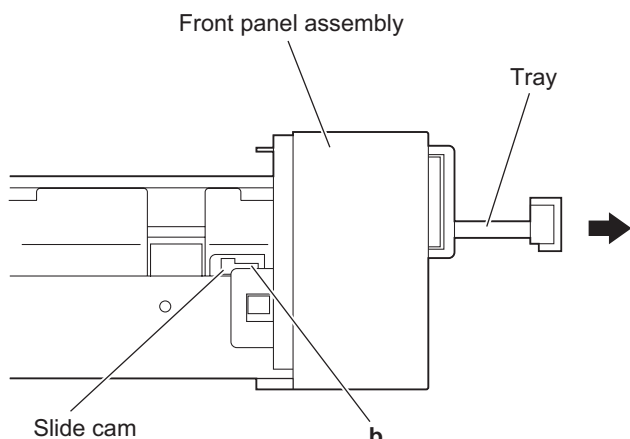
Fig.4

### 2.1.2 Removing the front panel assembly (See Figs.5 to 8.)

- Remove the top cover.
  - (1) From the left side of the main body, push the section b of the slide cam using the screw driver, etc. (See Fig.5.)
  - (2) Pull out the tray. (See Fig.5.)
  - (3) Push the tray fitting assembly of the tray in the direction of the arrow and then remove the tray fitting assembly. (See Fig.6.)
  - (4) Return the tray into the DVD mechanism assembly.
  - (5) From the bottom side of the main body, remove the four screws C attaching the front panel assembly. (See Fig.7.)
  - (6) From the top side of the main body, remove the two screws D attaching the front panel assembly. (See Fig.8.)
  - (7) Disconnect the card wires from the connectors CN206 and CN207 on the main board. (See Fig.8.)
  - (8) Remove the screw E attaching the lug wire. (See Fig.8.)
  - (9) While opening the hooks c to the right and left sides of the front panel assembly in the direction of the arrow 1, remove the front panel assembly in the direction of the arrow 2. (See Fig.8.)

**Reference:**

then hold the card wire to the sections d of the barrier. (See Fig.8.)



### 2.1.3 Removing the DVD mechanism assembly (See Fig.9.)

- Remove the top cover.
- Remove the front panel assembly.
  - (1) From the top side of the main body, remove the barrier.
  - (2) Disconnect the card wires from the connectors CN208 and CN209 on the main board.
  - (3) Remove the three screws F attaching the DVD mechanism assembly.
  - (4) Take out the DVD mechanism assembly from the chassis base.

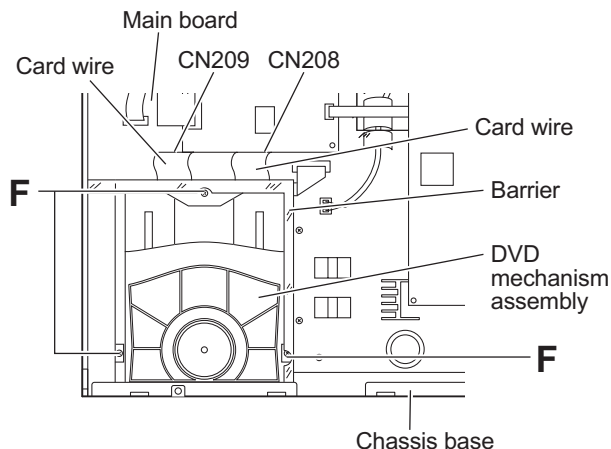


Fig.9

### 2.1.4 Removing the DSP board (See Figs.10 and 11.)

- Remove the top cover.
  - (1) From the top side of the main body, disconnect the card wires from the connectors CN591 and CN592 on the DSP board. (See Fig.10.)
  - (2) From the back side of the main body, remove the three screws G attaching the DSP board. (See Fig.11.)
  - (3) Remove the DSP board from the section e of the barrier, take out the DSP board. (See Fig.10.)

#### Reference:

When attaching the DSP board, hang the DSP board to the section e of the barrier. (See Fig.10.)

### 2.1.5 Removing the tuner (See Figs.10 and 11.)

- Remove the top cover.
  - (1) From the top side of the main body, disconnect the card wire from the connector CN1 on the tuner. (See Fig.10.)
  - (2) From the back side of the main body, remove the two screws H attaching the tuner. (See Fig.11.)

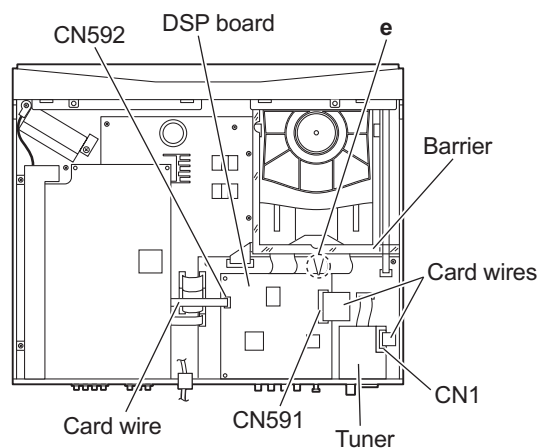


Fig.10

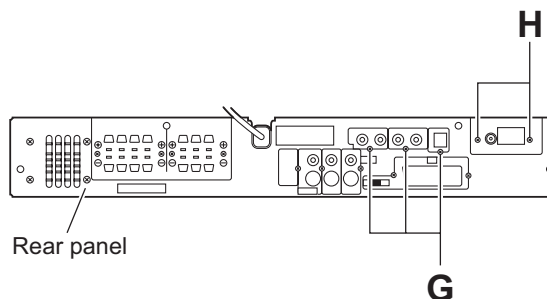
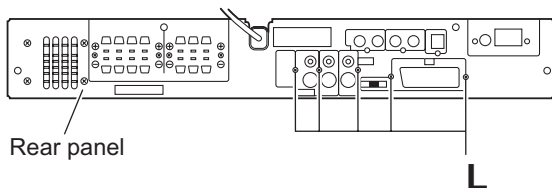
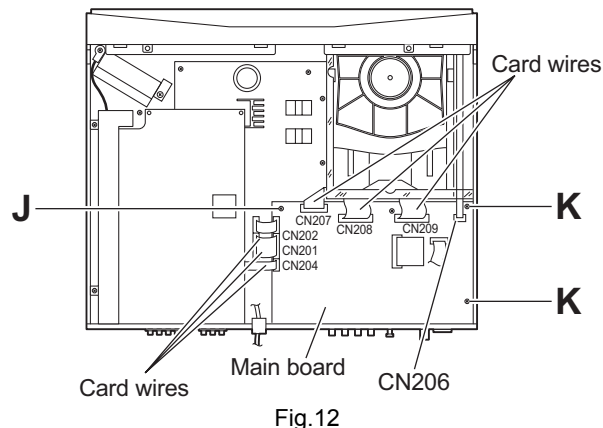


Fig.11

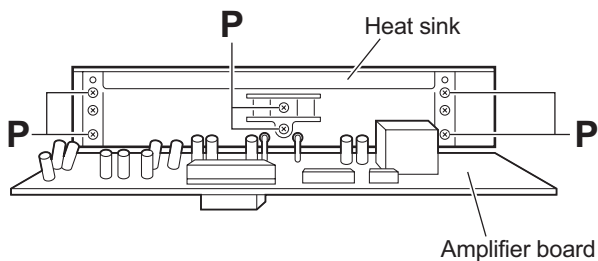
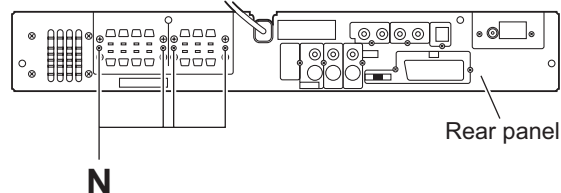
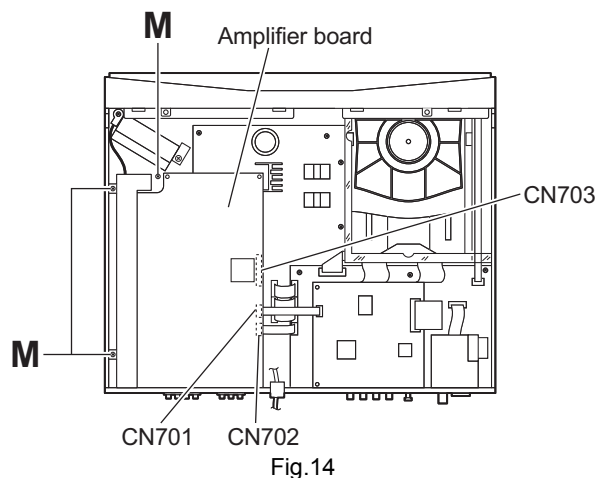
### 2.1.6 Removing the main board (See Figs.12 and 13.)

- Remove the top cover.
  - Remove the DSP board.
  - Remove the tuner.
- (1) From the top side of the main body, disconnect the card wires from the connectors (CN201, CN202, CN204, CN206-CN209) on the main board. (See Fig.12.)
  - (2) Remove the screw J and two screws K attaching the main board. (See Fig.12.)
  - (3) From the back side of the main body, remove the five screws L attaching the main board. (See Fig.13.)



### 2.1.7 Removing the amplifier board (See Figs.13 to 16.)

- Remove the top cover.
- (1) From the top side of the main body, disconnect the card wires from the connectors CN701 and CN702 on the amplifier board (See Fig.14.)
  - (2) Remove the three screws M attaching the amplifier board. (See Fig.13.)
  - (3) From the back side of the main body, remove the four screws N attaching the amplifier board. (See Fig.15.)
  - (4) Disconnect the connector CN703 on the amplifier board, take out the amplifier board. (See Fig.14.)
  - (5) Remove the six screws P attaching the heat sink to the amplifier board. (See Fig.16.)

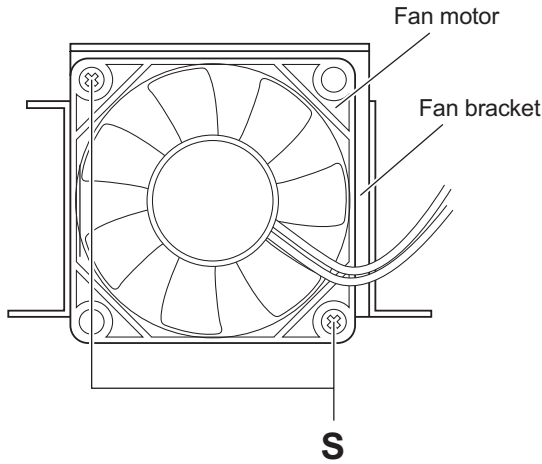
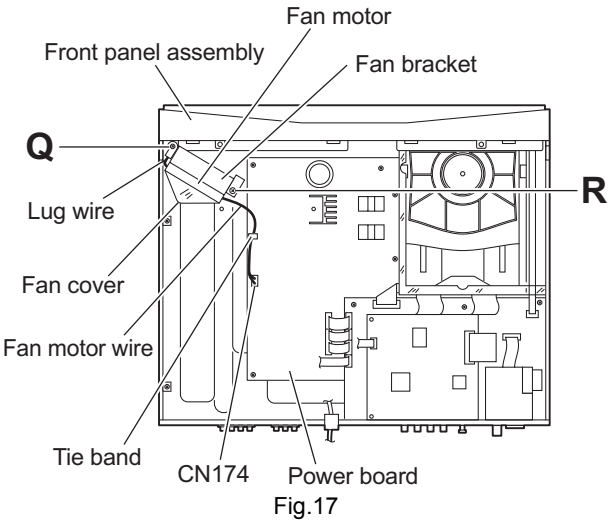


**2.1.8 Removing the fan motor (See Figs.17 and 18.)**

- Remove the top cover.
  - Remove the amplifier board.
- (1) From the top side of the main body, remove the fan cover. (See Fig.17.)
  - (2) Remove the tie band banding the fan motor wire and then disconnect the fan motor wire from the connector CN174 on the power board. (See Fig.17.)
  - (3) Remove the screw Q and screw R attaching the fan bracket. (See Fig.17.)
  - (4) Remove the two screws S attaching the fan motor to the fan bracket. (See Fig.18.)

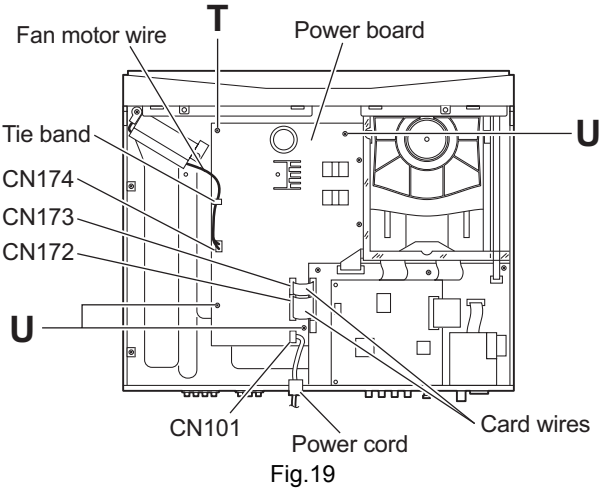
**Reference:**

When attaching the screw Q, attach the lug wire of the front panel assembly at the same time.



**2.1.9 Removing the power board (See Fig.19.)**

- Remove the top cover.
  - Remove the amplifier board.
- (1) From the top side of the main body, disconnect the card wires from the connectors CN172 and CN173 on the power board.
  - (2) Remove the tie band banding the fan motor wire and then disconnect the fan motor wire from the connector CN174 on the power board.
  - (3) Disconnect the power cord from the connector CN101 on the power board.
  - (4) Remove the screw T and three screws U attaching the power board.



## 2.2 Front panel assembly section

- Remove the top cover.
- Remove the front panel assembly.

### 2.2.1 Removing the jack board (See Fig.1.)

- (1) From the inside of the front panel assembly, disconnect the wire from the connector CN403 on the switch board.
- (2) Remove the two screws V attaching the jack holder, take out the jack board together the jack holder.

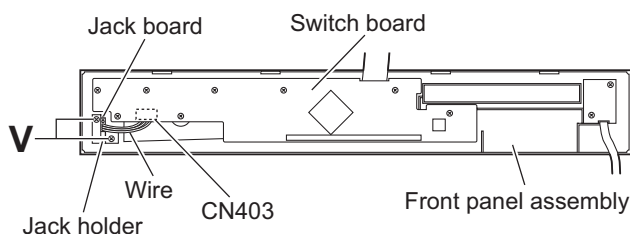


Fig.1

### 2.2.2 Removing the switch board (See Figs.2 and 3.)

- (1) From the inside of the front panel assembly, disconnect the wire from the connector CN403 on the switch board. (See Fig.2.)
- (2) Remove the eight screws W attaching the switch board, take out the switch board. (See Fig.2.)

#### Reference:

In the assembly, attach the switch board after attaching the push buttons and light lens as before. (See Fig.3.)

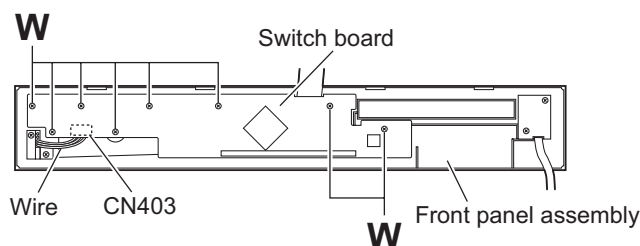


Fig.2

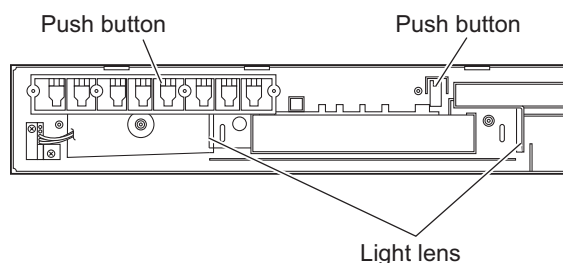


Fig.3

### 2.2.3 Removing the standby board (See Fig.4.)

From the inside of the front panel assembly, remove the two screws X attaching the standby board.

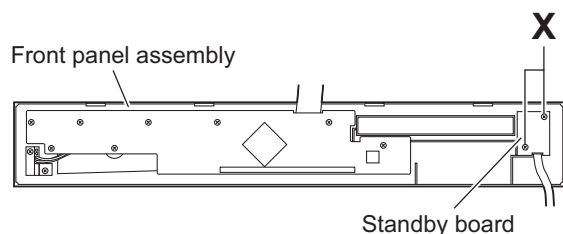


Fig.4

## 2.3 DVD mechanism section

- Remove the top cover.
- Remove the DVD mechanism assembly.

### 2.3.1 Removing the tray (See Figs.1 and 2.)

- (1) From the left side of the DVD mechanism assembly, push the slide cam in the direction of the arrow 1 and then pull out the tray in the direction of the arrow 2. (See Fig.1.)
- (2) Push the tray stoppers a in the direction of the arrow 3, pull out the tray in the direction of the arrow 4. (See Fig.2.)

### 2.3.2 Attaching the tray (See Fig.2.)

When attaching the tray, insert the tray to the rail of the DVD mechanism assembly and then push the tray in the DVD mechanism assembly.

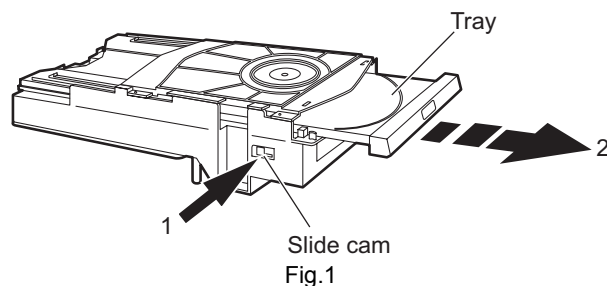


Fig.1

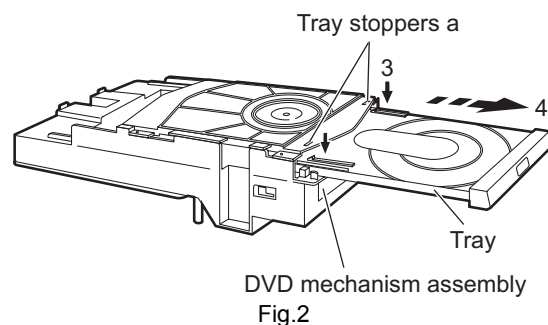


Fig.2

### 2.3.3 Removing the tray (See Fig.3.)

- (1) From the bottom side of the DVD mechanism assembly, disconnect the card wires from the connectors CN201 and CN202 on the DVD servo board.

**Caution:**

Be sure to solder the short land sections b on the flexible wire before disconnecting the flexible wire from connector CN101 on the DVD servo board.

If the flexible wire is disconnected without attaching solder, the DVD pickup unit may be destroyed by static electricity.

- (2) Release the locks of the connector CN101 (in the direction of the arrow 1) on the DVD servo board, disconnect the flexible wire.
- (3) Release the locks of the connector CN101 on the DVD servo board in the direction of the arrow 1, disconnect the flexible wire.

**Caution:**

In the assembly, be sure to remove solders from the short land sections b after connecting the flexible wire to the connector CN101 on the DVD servo board.

- (4) While pushing the claw c of the DVD mechanism assembly in the direction of the arrow 2, remove the DVD servo board in an upward direction.

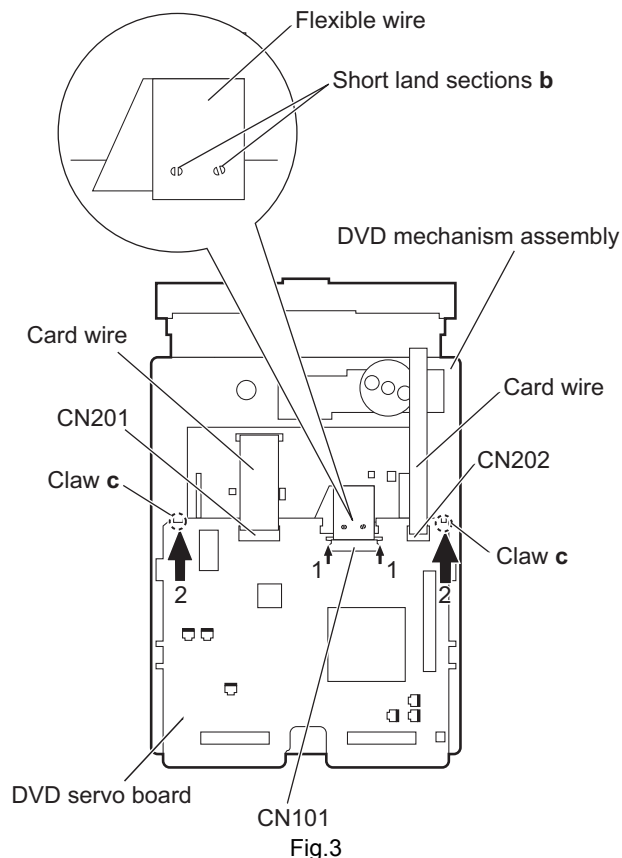


Fig.3

### 2.3.4 Removing the clamber base (See Fig.4.)

- (1) From the top side of the DVD mechanism assembly, remove the four screws A attaching the clamber base.
- (2) Remove the clamber base from the bosses d of the loading base in an upward direction, remove the clamber base from the sections e while sliding it in the direction of the arrow.

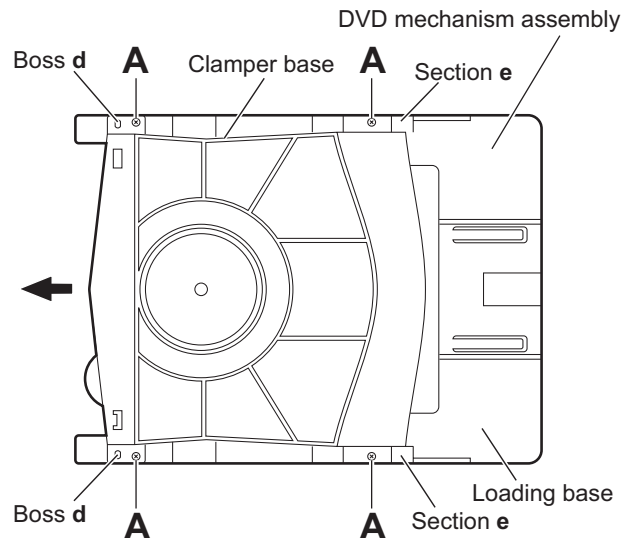


Fig.4

### 2.3.5 Removing the tray drive board (See Fig.5.)

- Remove the clamber base.

- (1) From the bottom side of the DVD mechanism assembly, remove the solders from the soldered sections f on the tray drive board.
- (2) Remove the screw B attaching the tray drive board to the DVD mechanism assembly.

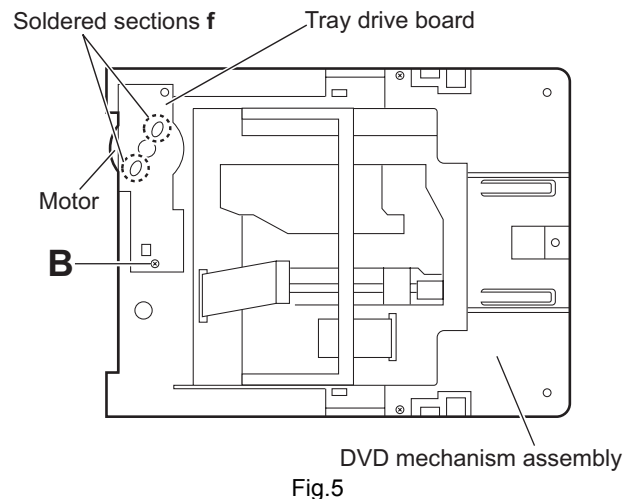


Fig.5



### 2.3.6 Removing the motor (See Fig.6.)

- Remove the clamper base.
  - Remove the tray drive board.
- (1) From the top side of the DVD mechanism assembly, remove the belt of the pulley gear.

#### Note:

Take care not to attach grease on the belt.

- (2) Remove the screw C attaching the motor to the DVD mechanism assembly.

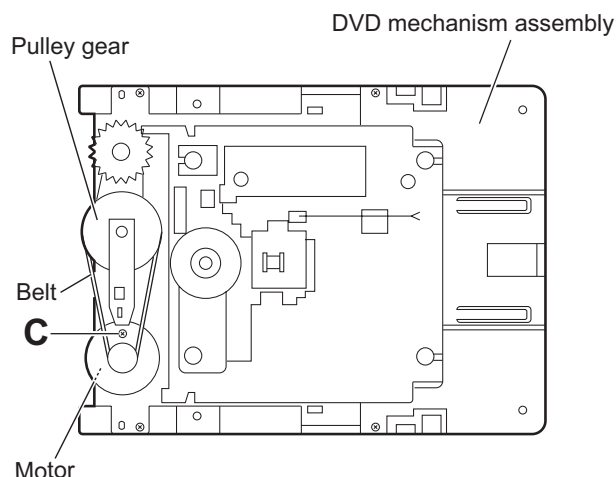


Fig.6

### 2.3.7 Removing the DVD traverse mechanism assembly (See Figs.7.)

- Remove the DVD servo board.
  - Remove the clamper base.
- (1) From the top side of the DVD mechanism assembly, remove the four screws D attaching the DVD traverse mechanism assembly to the loading base.
  - (2) Take out the DVD traverse mechanism assembly from the loading base.

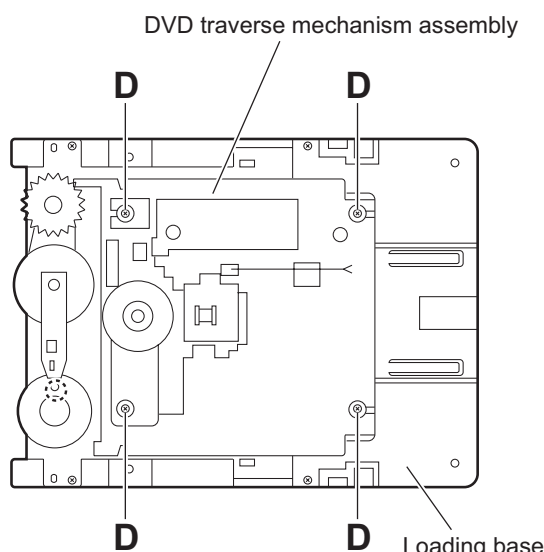


Fig.7

### 2.3.8 Removing the DVD pickup unit (See Figs.8 to 10.)

- Remove the DVD servo board.
  - Remove the clamper base.
  - Remove the DVD traverse mechanism assembly.
- (1) From the top side of the DVD traverse mechanism assembly, remove the screw E attaching the plate and torsion spring. (See Fig.8.)
  - (2) Remove the shaft from the section g and then remove the shaft from the section h. (See Fig.9.)
  - (3) Disengage the section i of the DVD pickup unit and then remove the DVD pickup unit with the shaft.
  - (4) Pull the shaft out of the DVD pickup unit.
  - (5) Remove the two screws F attaching the SW. actuator.

### 2.3.9 Attaching the DVD pickup unit (See Figs.8,10 to 12)

#### Reference:

Refer to the explanation of "Removing the DVD pickup unit" on the preceding page.

- (1) Attach the SW. actuator and shaft to the DVD pickup unit. (See Fig.10.)
- (2) Engage the section i of the DVD pickup unit to the shaft of the DVD traverse mechanism assembly first, and set the both ends of the shaft of the DVD pickup unit in the sections g and h of the DVD traverse mechanism assembly. (See Fig.11.)
- (3) Slide the DVD pickup unit all the way in the direction of the arrow. (See Fig.12.)
- (4) Mesh the lead screw to the section j of DVD pickup unit and then set the end of the lead screw to the section k. (See Fig.12.)
- (5) Attach the torsion spring. (See Fig.8.)
- (6) Attach the plate. (See Fig.8.)

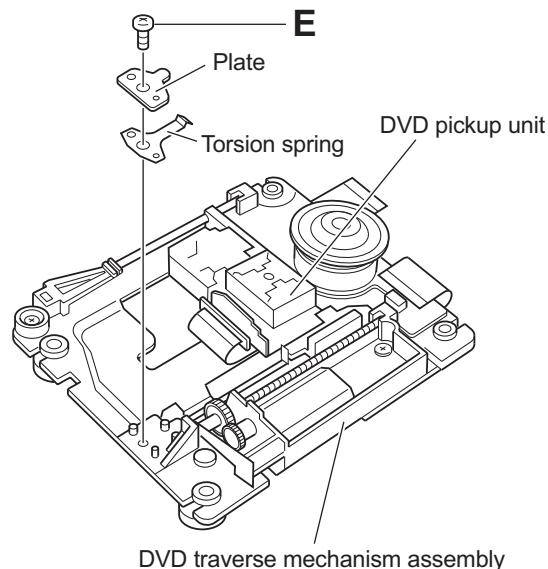


Fig.8

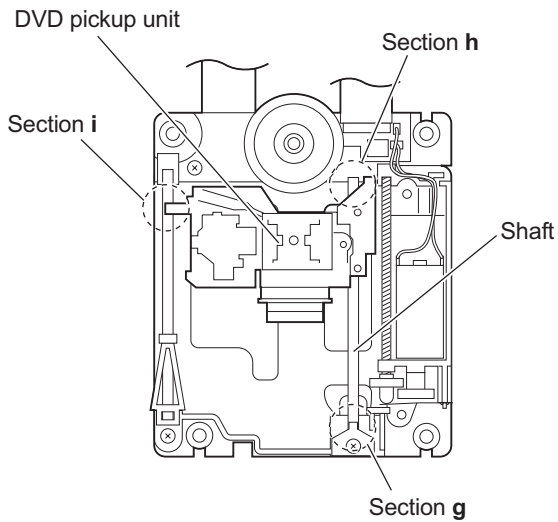


Fig.9

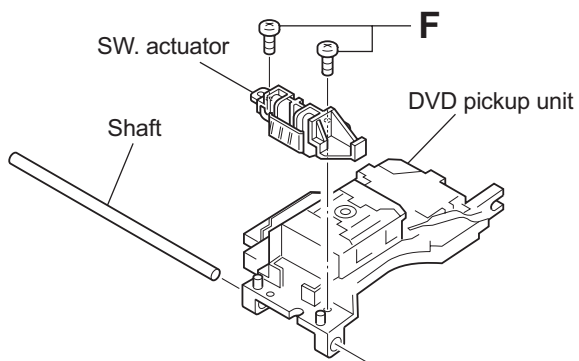
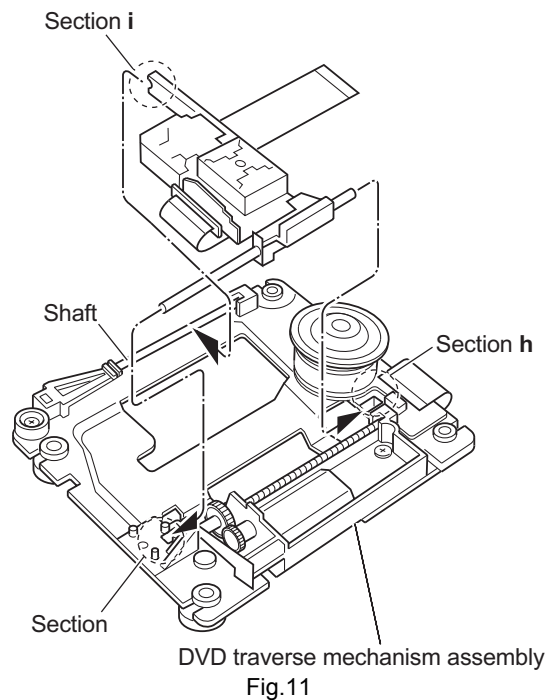


Fig.10



DVD traverse mechanism assembly  
Fig.11

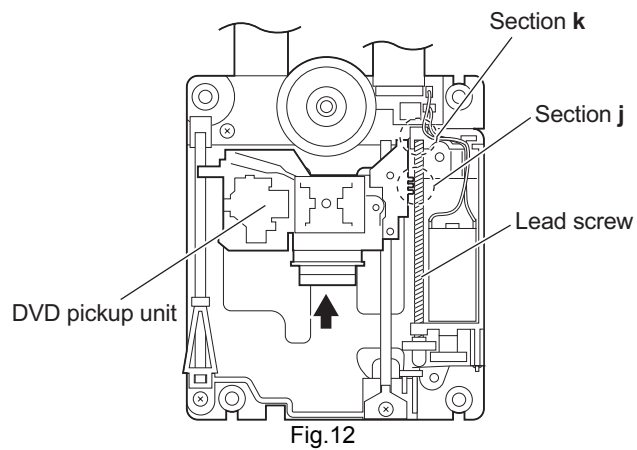
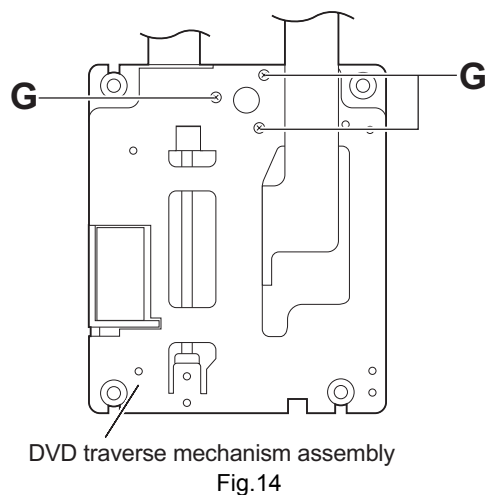
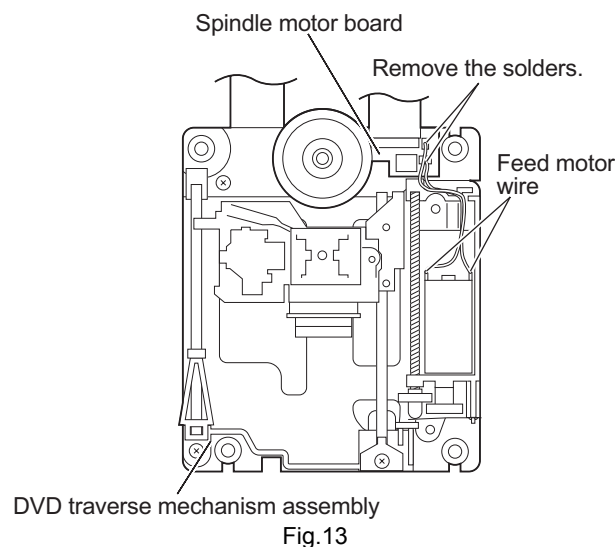


Fig.12

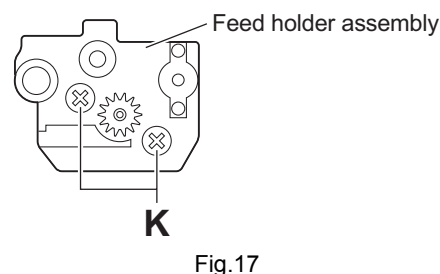
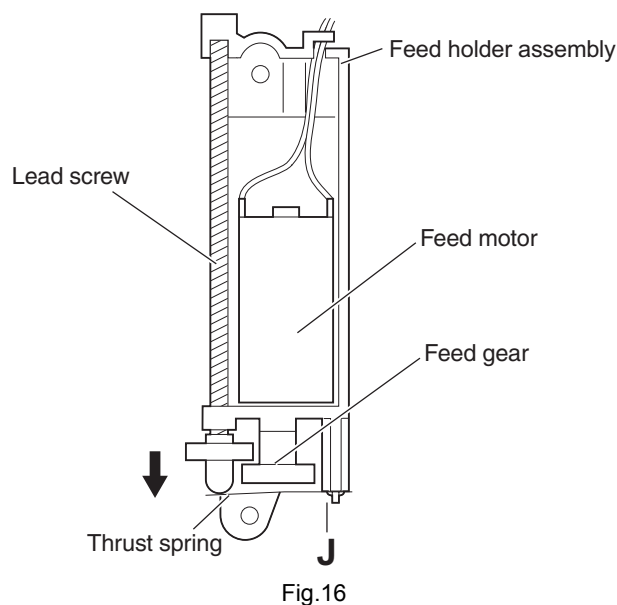
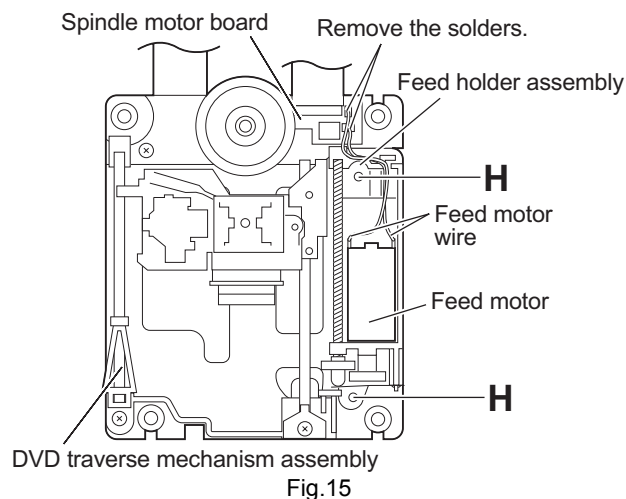
### 2.3.10 Removing the spindle motor board (See Figs.13 and 14.)

- Remove the DVD servo board.
  - Remove the clamber base.
  - Remove the DVD traverse mechanism assembly.
- (1) From the top side of the DVD traverse mechanism assembly, remove the feed motor wire that is soldered to the spindle motor board. (See Fig.13.)
  - (2) From the bottom side of the DVD traverse mechanism assembly, remove the three screws G attaching the spindle motor board. (See Fig.14.)



### 2.3.11 Removing the feed motor (See Figs.15 to 17.)

- Remove the DVD servo board.
  - Remove the clamber base.
  - Remove the DVD traverse mechanism assembly.
- (1) From the top side of the DVD traverse mechanism assembly, remove the feed motor wire that is soldered to the spindle motor board. (See Fig.15.)
  - (2) Remove the screws H attaching the feed holder assembly and then take out the feed holder assembly. (See Fig.15.)
  - (3) Remove the screw J attaching the thrust spring. (See Fig.16.)
  - (4) Remove the feed gear and lead screw in the direction of the arrow. (See Fig.16.)
  - (5) Remove the two screws K attaching the feed motor. (See Fig.17.)



## SECTION 3

### Adjustment

#### 3.1 Test mode

- (1) The AC cord is connected after pushing the STOP key and the EJECT key of a main body.
- (2) Change to test mode, FL indicate "TEST ??". (?? is version)  
At this time, TV monitor indicate the firm number " \* \* \* ".
- (3) Press PAUSE key of the main body, EEPROM initialize is start.  
FL indicate "RDS", EEPROM initialize is complete.
- (4) Release the test mode by power to off.

#### 3.2 Up grade

##### 3.2.1 How to UPGRADE

- (1) Power to on then mode to DVD.
- (2) Set the recorded disc.  
(Down loaded the up grade program "TH-A75 -Firmware Update Procedure" from Audio Products DIV. Technological Material of JS-Net .)
- (3) FL indicate "UPGRADE", press cursol ↑ key of the remote controller.
- (4) TV monitor indication the UPGRADE condition.
- (5) Upgrade is complete, disc is automatically eject then finish the upgrade.

##### 3.2.2 After UPGRADE

After upgrade, it is should done the EEPROM initialize and confirm the firm number.

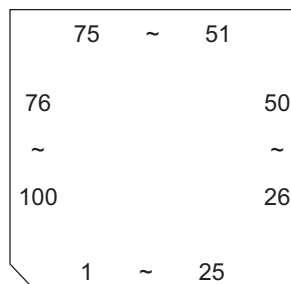
- (1) Tray close then release the AC cord.
- (2) The AC cord is connected after pushing the STOP key and the EJECT key of a main body.
- (3) Change to test mode, FL indicate "TEST ??". (?? is version)  
In this time, confrim the TV monitor indicate the firm number "114".
- (4) EEPROM initialize start by press the PAUSE key of main body.  
FL indicate "RDS", EEPROM initialize is complete.
- (5) Release the test mode by power to off.

## SECTION 4

### Description of major ICs

#### 4.1 UPD784215AGC194 (IC531) : CPU

- Pin layout



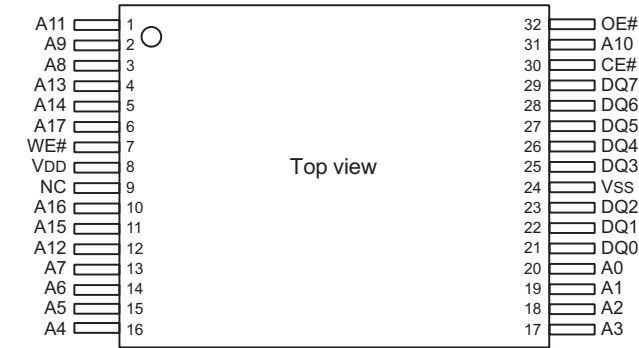
- Pin function

Pin No.	Symbol	I/O	Function
1~8	-	-	Not use
9	VDD	-	+3.0V
10	X2	I	Main system clock input
11	X1	I	Main system clock input
12	VSS	-	GND
13	XT2	-	OPEN
14	XT1	I	Connect to VSS
15	RESET	I	Reset for Flash write
16	-	-	Not use
17	INT0	I	Error input0 (detect UNLOCK)
18	INT1	I	Error input1 (detect Non Audio)
19	DZF	I	GND
20~22	-	-	Not use
23	AVDD	-	The same potential as VDD
24	AV REF0	-	The same potential as VSS
25	-	-	Not use
26	CS1	I	Chip select input port
27	CS2	I	Chip select input port
28	CS3	I	Chip select input port
29	CS4	I	Chip select input port
30~32	-	-	Not use
33	AVSS	-	The same potential as VSS
34, 35	-	-	Not use
36	AV REF1	-	The same potential as VDD
37	RX	O	For flash write
38	TX	O	For flash write
39	-	-	Not use
40	DSP_COM	I	Command (serial 1)
41	DSP_STS	O	Status (Serial 1)
42	DSP_CLK	I	Clock (Serial 1)
43	DSP_RDY	I	Ready
44	-	-	Not use
45	MIDIO_IN	I	Data in (Serial 0)
46	MIDIO_OUT	O	Data out (Serial 0)
47	MICK	O	Clock (Serial 0)

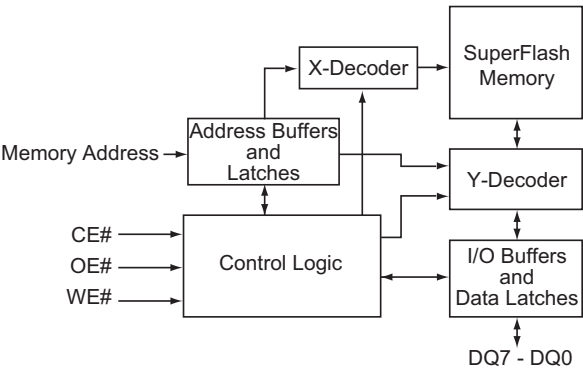
Pin No.	Symbol	I/O	Function
48	HREQ	I	HREQ
49	SS	O	Slave select
50,51	-	-	Not use
52	DSP_RST	O	DSP RESET
53	-	-	Not use
54	DA_CS	O	Chip select output
55	-	-	Not use
56	PD/DA	O	Power down output (RESET)
57	PD	O	Power down output (RESET)
58~63	-	-	Not use
64	CODEC_D-OUT	O	Data out
65	CODEC_D-IN	I	Data in
66	CODEC_CLK	O	Clock
67	CODEC_CS	O	Chip select output
68	DEBUG1	O	Debug out port
69	DEBUG2	O	Debug out port
70	DEBUG3	O	Debug out port
71	GEBUG4	O	Debug out port
72	GND	-	GND
73~75	-	-	Not use
76	EQ	O	EQ
77	CTR_TONE	O	Center tone
78	3D	O	3D-Phonic
79, 80	-	-	Not use
81	VDD	-	+3.0V
82, 83	-	-	Not use
84	ANA/T.TUNE	O	ANALOG./T.TONE
85	LFE.MIX	O	LFE MIX CONTROL
86	LEF_OUT	O	LFE OUT CONTROL
87	-	-	Not use
88	S.MUTE	O	S.MUTE
89~93	-	-	Not use
94	TEST	O	Usual "VSS"
95~100	-	-	Not use

4.2 39VF0207CWHQ01 (IC524) : 2 Mbit multi-purpose flash memory

• Pin layout



• Block diagram

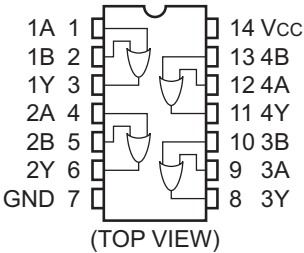


• Pin function

Pin No.	Symbol	Function
1 - 6	A11,A9,A8 A13,A14,A17	Address inputs
7	WE#	Write enable
8	VDD	Power supply
9	NC	Not connect
10 - 20	A16,A15,A12 A7 - A0	Address inputs
21 - 23	DQ0 - DQ2	Data inputs/outputs
24	VSS	Ground
25 - 29	DQ3 - DQ7	Data inputs/outputs
30	CE#	Chip enable
31	A10	Address input
32	OE#	Output enable

### 4.3 MM74HCT32MTC-X (IC521) : Quad 2 input OR gate

- Pin layout & Block diagram

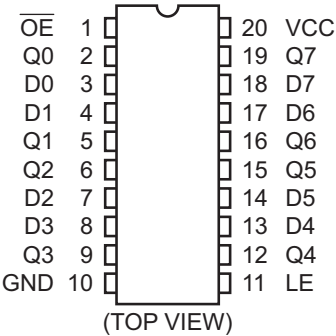


- Truth table

INPUTS		OUTPUT
A	B	Y
L	L	L
L	H	H
H	L	H
H	H	H

### 4.4 74LCX373MTC-X (IC512,IC513) : Octal D-type latch

- Pin layout



- Truth table

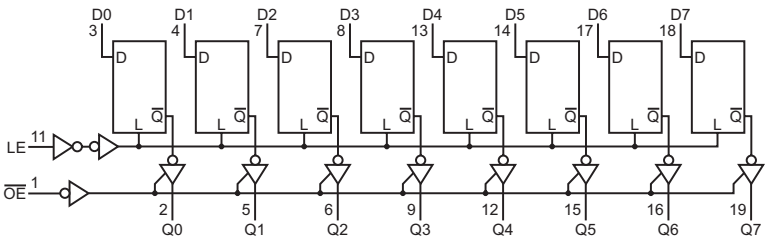
INPUTS			OUTPUT
$\overline{OE}$	LE	D	Y
H	X	X	Z
L	L	X	Qn
L	H	L	L
L	H	H	H

X: Don't care

Z: High impedance

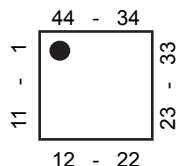
Qn: Q outputs are latched at the time when the LE input is taken to a low logic level.

- Block diagram



#### 4.5 AK4586VQ (IC511) : A/D, D/A Converter

- Pin layout

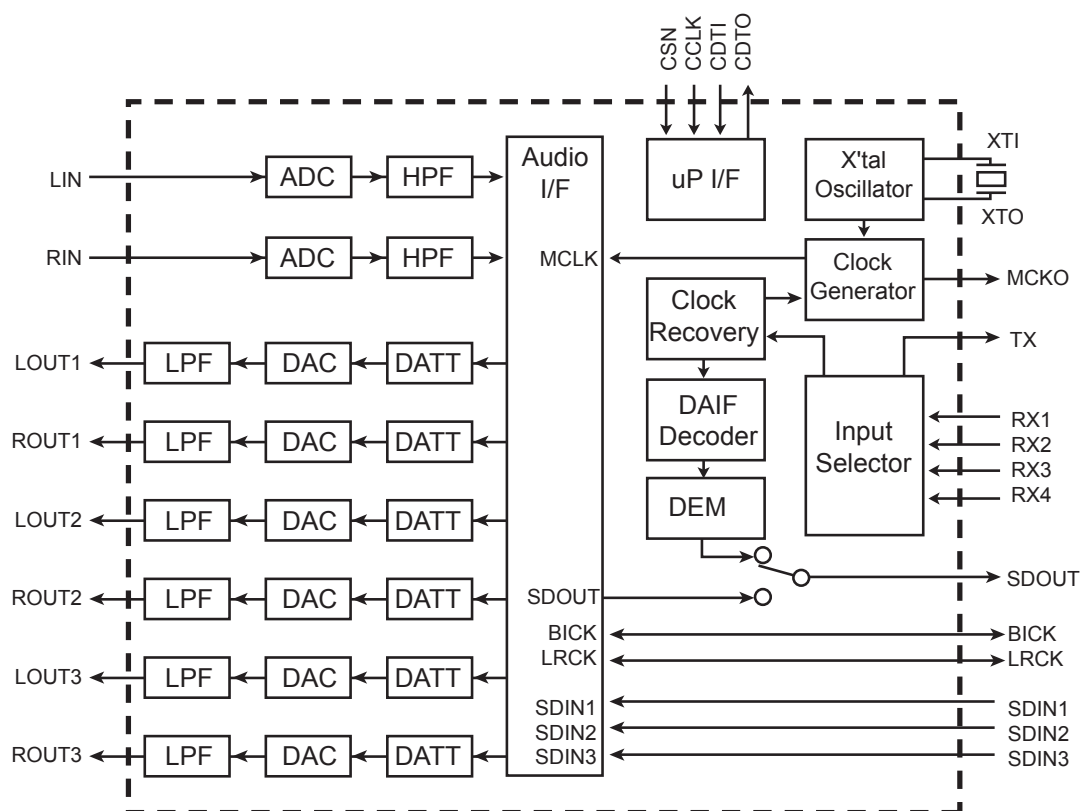


- Pin function

Pin No.	Symbol	I/O	Function
1	XTO	O	X'tal output pin
2	XTI	I	X'tal input pin
	EXTCLK	I	External master clock input pin
3	TVDD	-	Output buffer power supply pin, 2.7V~5.5V
4	VDSS	-	Digital Ground pin, 0V
5	DVDD	-	Digital power supply pin, 4.5V~5.5V
6	TX	O	Transmit channel (through data) output pin
7	MCKO	O	Master clock output pin
8	LRCK	I/O	Input/Output channel clock pin
9	BICK	I/O	Audio serial data clock pin
10	SDTO	O	Audio serial data output pin
11	SDTI1	I	DAC1 audio serial data input pin
12	SDTI2	I	DAC2 audio serial data input pin
13	SDTI3	I	DAC3 audio serial data input pin
14	INT0	O	Interrupt 0 pin
15	INT2	O	Interrupt 1 pin
16	CDO	O	Control data output pin in 4-wire serial control mode
	CAD1	I	Chip address 1 pin in I2C bus control mode
17	CDTI	I	Control data input pin in 4-wire serial control mode
	SDA	I/O	Control data input/output pin in I2C bus control mode
18	CCLK	I	Control data clock pin in 4-wire serial control mode
	SCL	I	Control data clock pin in I2C bus control mode
19	CSN	I	Chip select pin in 4-wire serial control mode
	CAD0	I	Chip address 0 pin in I2C bus control mode
20	DZF2	O	Zero input detect 2 pin
	OVF	O	Analog input overflow detect pin
21	AVSS	-	Analog ground pin, 0V
22	AVDD	-	Analog power supply pin, 4.5V~5.5V
23	VREFH	I	Positive voltage reference input pin, AVDD
24	VCOM	O	Common voltage output pin, AVDD/2
25	DZF1	O	Zero input detect 1 pin
26	LOUT3	O	DAC3 Lch analog output pin
27	ROUT3	O	DAC3 Rch analog output pin
28	LOUT2	O	DAC2 Lch analog output
29	ROUT2	O	DAC2 Rch analog output pin
30	LOUT1	O	DAC1 Lch analog output pin
31	ROUT1	O	DAC1 Rch analog output pin
32	LIN	I	Lch analog input pin
33	RIN	I	Rch analog input pin
34	PCDD	-	PLL power supply pin, 4.5V~5.5V
35	R	-	External resistor pin
36	PVSS	-	PLL ground pin, 0V
37	RX4	I	Receiver channel 4 pin (internal biased pin)
38	SLAVE	I	Slave mode pin
39	RX3	I	Receiver channel 3 pin (internal biased pin)
40	TST	I	Test pin
41	RX2	I	Receiver channel 2 pin (internal biased pin)
42	I2C	I	Control mode select pin
43	RX1	I	Receiver channel 1 pin (internal biased pin)
44	PDN	I	Power-Down & Reset pin

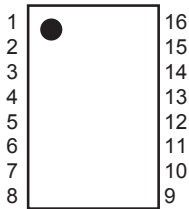


- Block diagram

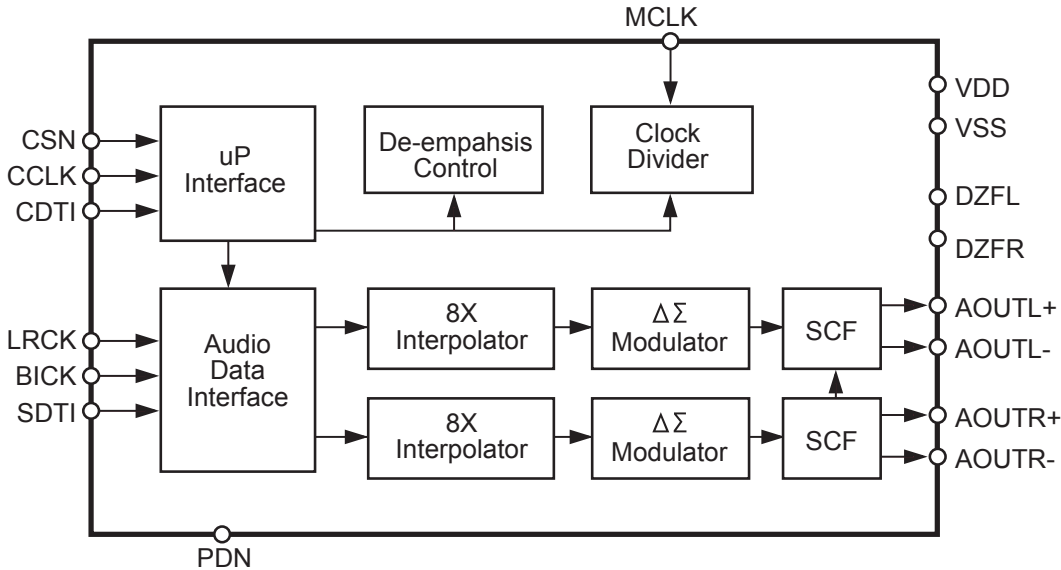


4.6 AK4382AVT-X (IC512) : D/A Converter

- Pin layout



- Block diagram

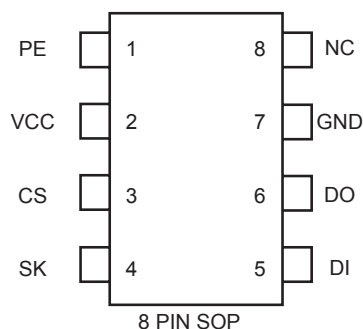


- Pin function

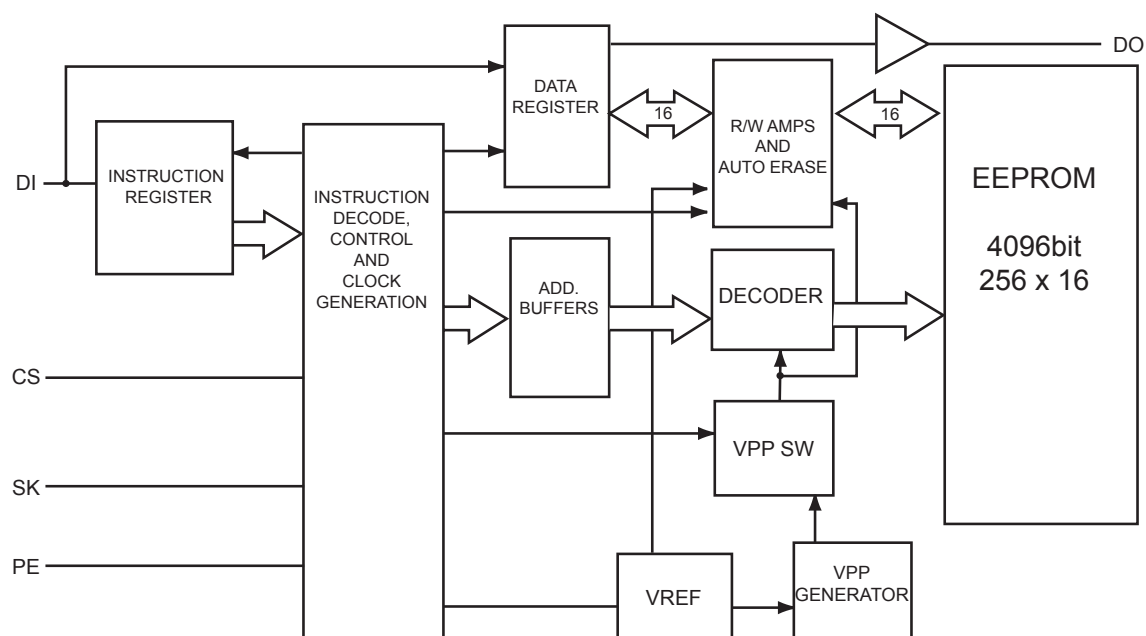
Pin No.	Symbol	I/O	Function
1	MCLK	I	Master Clock Input Pin
2	BICK	I	Audio Serial Data Clock Pin
3	SDTI	I	Audio Serial Data Input Pin
4	LRCK	I	L/R Clock Pin
5	PDN	I	Power-Down Mode Pin
6	CSN	I	Chip Select Pin
7	CCLK	I	Control Data Input Pin
8	CDTI	I	Control Data Input Pin
9	AOUTR-	O	Rch Negative Analog Output Pin
10	AOUTR+	O	Rch Positive Analog Output Pin
11	AOUTL-	O	Lch Negative Analog Output Pin
12	AOUTL+	O	Lch Positive Analog Output Pin
13	VSS	-	Ground Pin
14	VDD	-	Power Supply Pin
15	DZFR	O	Rch Data Zero Input Detect Pin
16	DZFL	O	Lch Data Zero Input Detect Pin

#### 4.7 AK93C65AF-X (IC510) : EEPROM

- Pin layout



- Block diagram



- Pin function

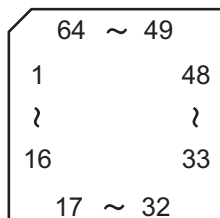
Pin no.	Symbol	Function
1	PE	Program enable (With built-in pull-up resistor)
2	VCC	Power supply
3	CS	Chip selection
4	SK	Cereal clock input
5	DI	Cereal data input
6	DO	Cereal data output
7	GND	Ground
8	NC	No connection

**NOTE :**

The pull-up resistor of the PE pin is about 2.5Mohm (VCC=5V)

#### 4.8 AN8703FH-V (IC101) : Frontend processor for DVD

- Pin layout



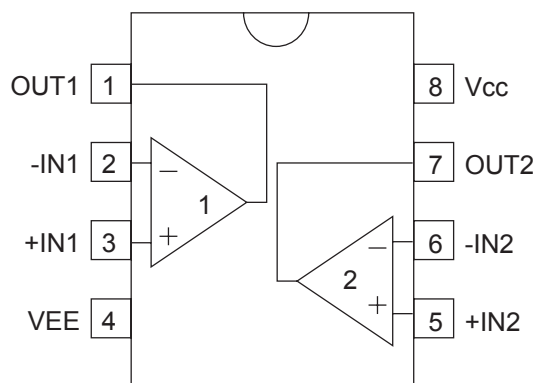
- Pin function

Pin No.	Symbol	I/O	Description
1	LPC1	I	Laser input terminal (DVD)
2	LPC01	O	Laser drive signal output terminal (DVD)
3	LPC2	I	Laser input terminal (CD)
4	LPC02	O	Laser drive signal output terminal (CD)
5	VFOSHORT	I	VFOSHORT control terminal
6	TBAL	I	Tracking balance control terminal
7	FBAL	I	Focus balance control terminal
8	POFLT	O	Track detection threshold level terminal
9	DTRD	I	Data slice part data read signal input terminal(For RAM)
10	IDGT	I	Data slice part address part gate signal input terminal( For RAM)
11	STANDBY	I	Standby mode control terminal
12	SEN	I	SEN(Serial data input terminal)
13	SCK	I	SCK(Serial data input terminal)
14	STDI	I	STDI(Serial data input terminal)
15	RSCL	I	Standard electric current terminal
16	JLINE	I	Electric current setting terminal of JLine
17	TEN	I	Reversing input terminal of tracking error output AMP.
18	TEOUT	O	Tracking error signal output terminal
19	AGCBAL	I	Offset adjusting terminal 1
20	ASOUT	O	Full adder signal output terminal
21	FEN	I	Focus error output amplifier reversing input terminal
22	FEOUT	O	Focus error signal output terminal
23	AGCOFST	I	Offset adjusting terminal 2
24	MON	-	Non connect
25	AGCLVL	O	Output amplitude adjustment for DRC
26	GND2	-	Connect to GND
27	VREF2	O	VREF2 voltage output terminal
28	VCC2	-	Power supply terminal 5V
29	VHALF	O	VHALF voltage output terminal
30	DFLTON	O	Reversing output terminal of filter AMP.
31	DFLTOP	O	Filter AMP. output terminal
32	DCFLT	I	Capacity connection terminal for filter output

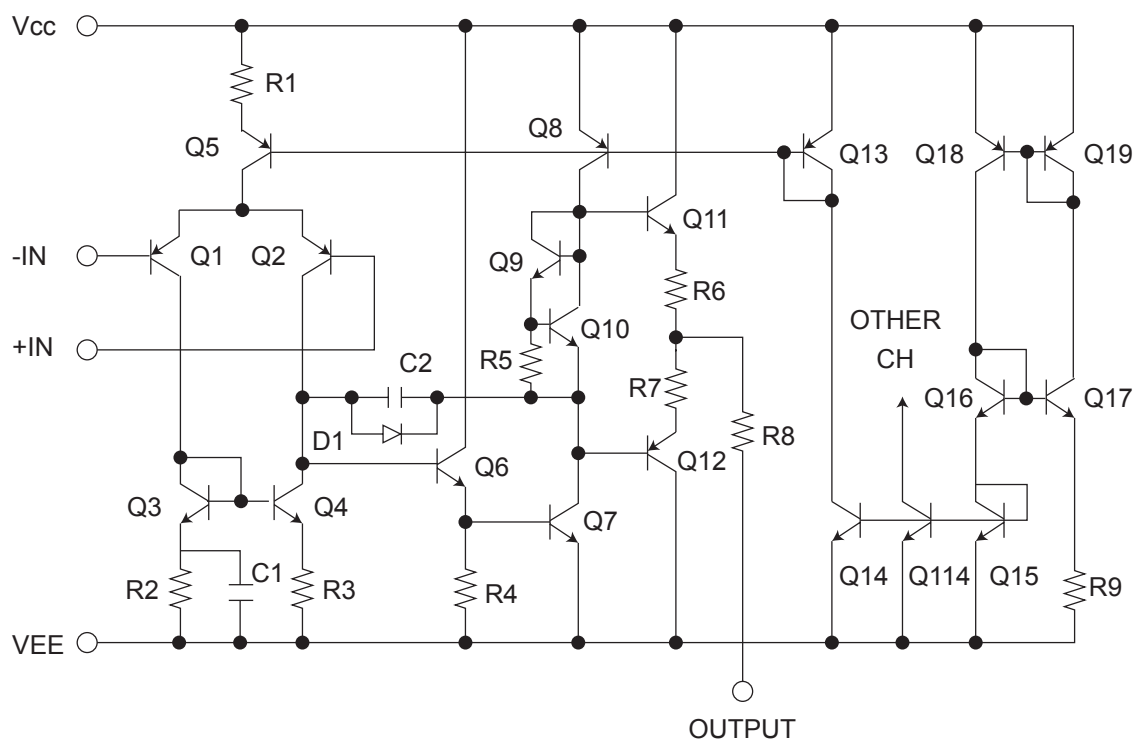
Pin No.	Symbol	I/O	Description
33	GND3	-	Connect to GND
34	RFDIFO	-	Non connect
35	RFOUT	-	Connect to TP103
36	VCC3	-	Power supply terminal 3.3V
37	RFC	O	Filter for RF delay correction AMP.
38	DCRF	O	All addition amplifier capacitor terminal
39	OFTR	O	OFTR output terminal
40	BDO	O	BDO output terminal
41	RFENV	O	RF envelope output terminal
42	BOTTOM	O	Bottom envelope detection filter terminal
43	PEAK	O	Peak envelope detection filter terminal
44	AGCG	O	AGC amplifier gain control terminal
45	AGCO	O	AGC amplifier level control terminal
46	TESTSG	I	TEST signal input terminal
47	RFINP	I	RF signal positive input terminal
48	RFINN	I	RF signal negative input terminal
49	VIN5	I	Internal four-partition (CD) RF input 1
50	VIN6	I	Internal four-partition (CD) RF input 2
51	VIN7	-	Internal four-partition (CD) RF input 3
52	VIN8	-	Internal four-partition (CD) RF input 4
53	VIN9	I	External two-partition (DVD) RF input 2
54	VIN10	I	External two-partition (DVD) RF input 1
55	VCC1	-	Power supply terminal 5V
56	VREF1	O	VREF1 voltage output terminal
57	VIN1	I	Internal four-partition (DVD) RF input 1
58	VIN2	I	Internal four-partition (DVD) RF input 2
59	VIN3	I	Internal four-partition (DVD) RF input 3
60	VIN4	I	Internal four-partition (DVD) RF input 4
61	GND1	-	Connect to GND
62	VIN11	I	3 beam sub input terminal 2 (CD)
63	VIN12	I	3 beam sub input terminal 1 (CD)
64	HDTYPE	O	HD Type selection

#### 4.9 BA15218F-XE (IC251/IC540/IC544/IC546/IC548/IC557/IC560/IC562/IC564/IC566/IC711/IC712) : Dual operational amplifier

- Pin layout

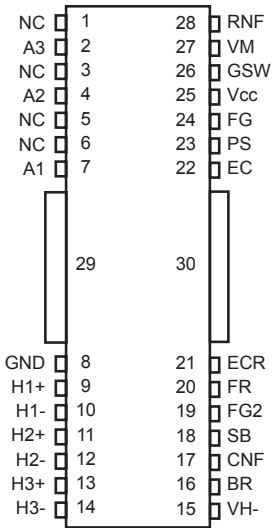


- Block diagram

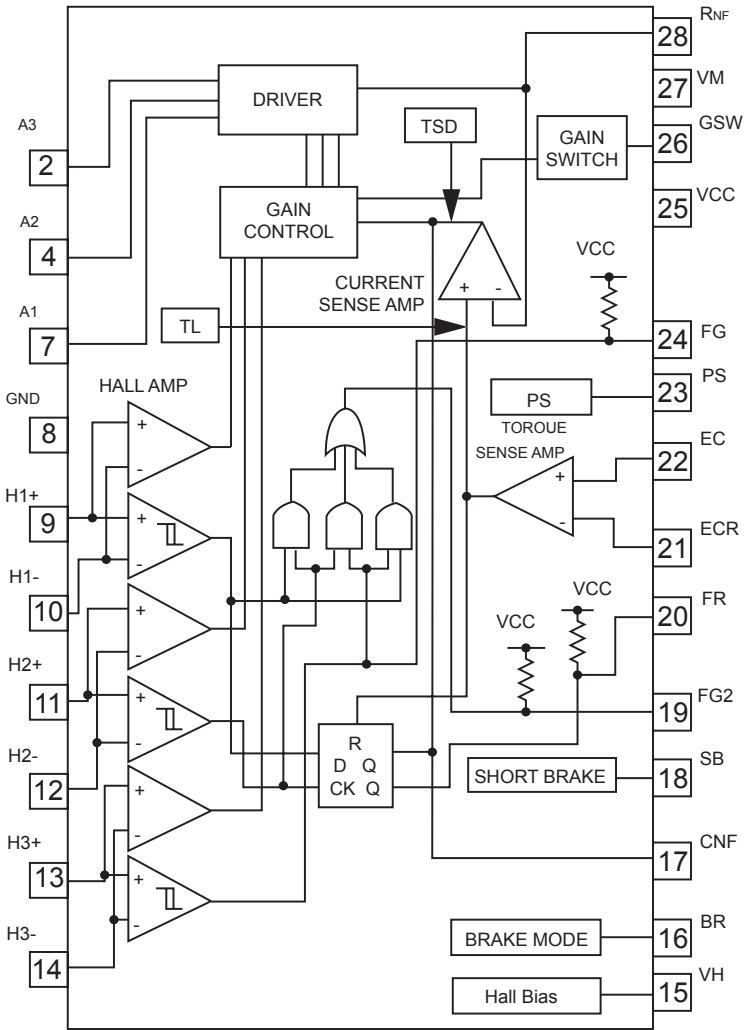


4.10 BA6664FM-X (IC251) : Motor driver

- Pin layout



- Block diagram

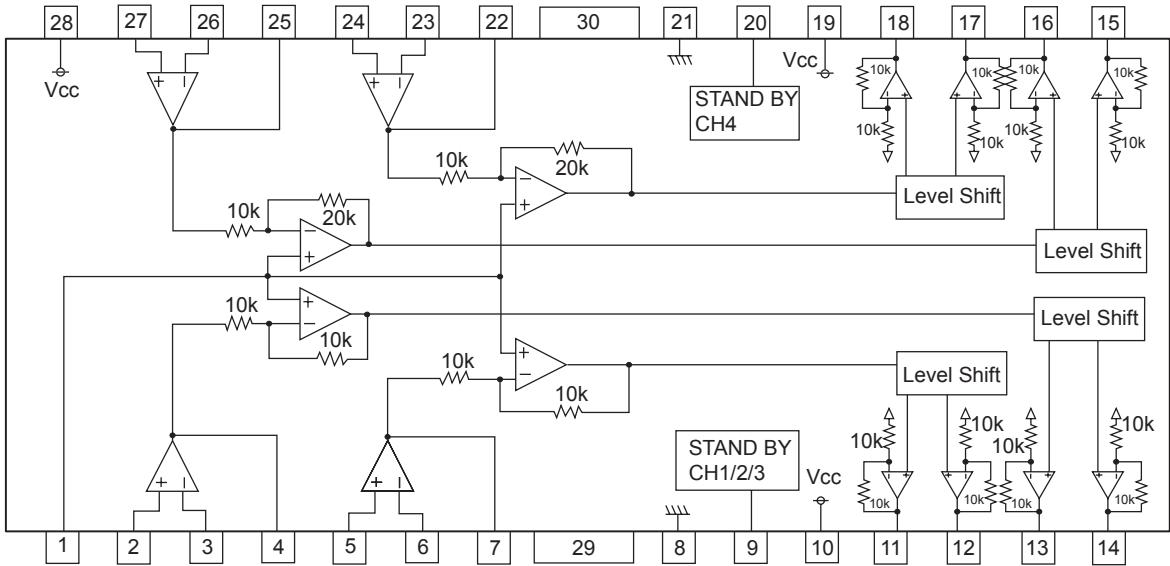


- Pin function

Pin No.	Symbol	I/O	Description
1	NC	-	Non connect
2	A3	O	Output 3 for spindle motor
3	NC	-	Non connect
4	A2	O	Output 2 for spindle motor
5	NC	-	Non connect
6	NC	-	Non connect
7	A1	O	Output 1 for spindle motor
8	GND	-	Connect to ground
9	H1+	I	Positive input for hall input AMP 1
10	H1-	I	Negative input for hall input AMP 1
11	H2+	I	Positive input for hall input AMP 2
12	H2-	I	Negative input for hall input AMP 2
13	H3+	I	Positive input for hall input AMP 3
14	H3-	I	Negative input for hall input AMP 3
15	VH	I	Hall bias terminal
16	BR	-	Non connect
17	CNF	-	Capacitor connection pin for phase compensation
18	SB	I	Short brake terminal
19	FG2	-	Non connect
20	FR	-	Non connect
21	ECR	I	Torque control standard voltage input terminal
22	EC	I	Torque control voltage input terminal
23	PS	O	Start/stop switch (power save terminal)
24	FG	O	FG signal output terminal
25	VCC	-	Power supply for signal division
26	GSW	O	Gain switch
27	VM	-	Power supply for driver division
28	RNF	O	Resistance connection pin for output current sense
29		-	Connect to ground
30		-	Connect to ground

4.11BA5983FM-X (IC201) : 4-channel driver

• Block diagram



• Pin function

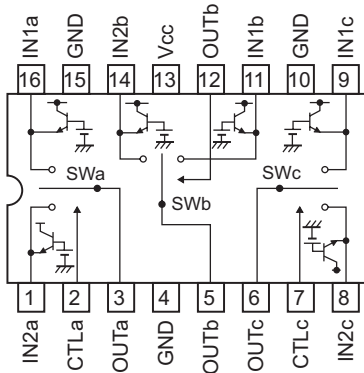
Pin No.	Symbol	I/O	Description
1	BIAS IN	I	Input for Bias-amplifier
2	OPIN1(+)	I	Non inverting input for CH1 OP-AMP
3	OPIN1(-)	I	Inverting input for CH1 OP-AMP
4	OPOUT1	O	Output for CH1 OP-AMP
5	OPIN2(+)	I	Non inverting input for CH2 OP-AMP
6	OPIN2(-)	I	Inverting input for CH2 OP-AMP
7	OPOUT2	O	Output for CH2 OP-AMP
8	GND	-	Substrate ground
9	STBY1	I	Input for CH1/2/3 stand by control
10	PowVcc1	-	Vcc for CH1/2 power block
11	VO2(-)	O	Inverted output of CH2
12	VO2(+)	O	Non inverted output of CH2
13	VO1(-)	O	Inverted output of CH1
14	VO1(+)	O	Non inverted output of CH1
15	VO4(+)	O	Non inverted output of CH4

Pin No.	Symbol	I/O	Description
16	VO4(-)	O	Inverted output of CH4
17	VO3(+)	O	Non inverted output of CH3
18	VO3(-)	O	Inverted output of CH3
19	PowVcc2	-	Vcc for CH3/4 power block
20	STBY2	I	Input for Ch4 stand by control
21	GND	-	Substrate ground
22	OPOUT3	O	Output for CH3 OP-AMP
23	OPIN3(-)	I	Inverting input for CH3 OP-AMP
24	OPIN3(+)	I	Non inverting input for CH3 OP-AMP
25	OPOUT4	O	Output for CH4 OP-AMP
26	OPIN4(-)	I	Inverting input for CH4 OP-AMP
27	OPIN4(+)	I	Non inverting input for CH4 OP-AMP
28	PreVcc	-	Vcc for pre block
29		-	Connect to ground
30		-	Connect to ground



#### 4.12BA7603F-X (IC211/IC221) : Video signal switcher

- Pin layout & Block diagram

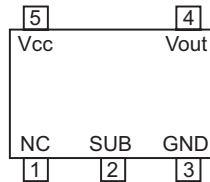


CTL	OUTPUT
H	IN2
L	IN1

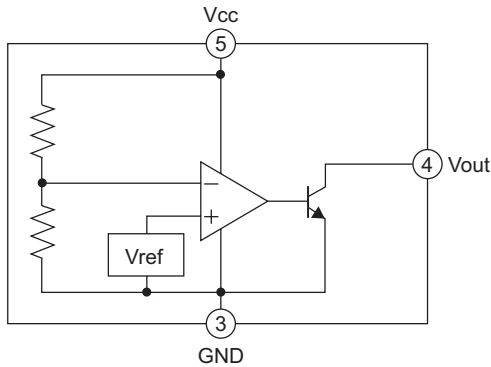
SWa,SWb,SWc: Clamp inputs

#### 4.13 BD4740G-W (IC272) : Reset

- Pin layout

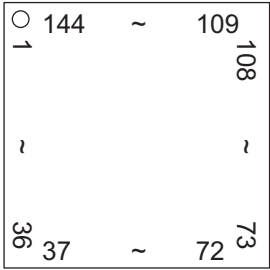


- Block diagram

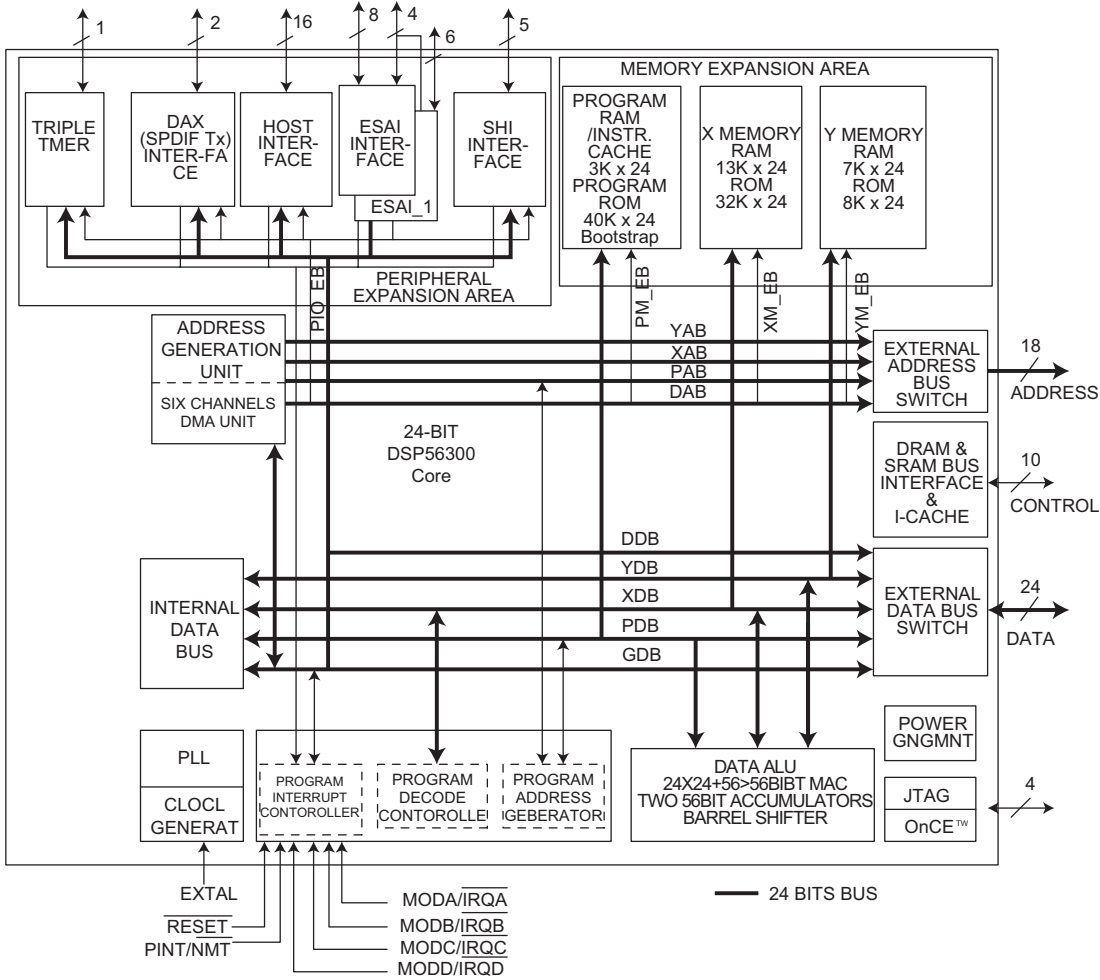


4.14 DSPC56367PV150 (IC521) : DSP

- Pin layout



- Block diagram



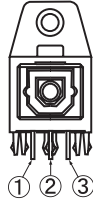
## • Pin function

Pin No	Symbol	I/O	Function
1	SCK/SCL	I/O	SPI serial clock / I2C serial clock
2	SS/HA2	I	SPI slave select / I2C slave address 2
3	HREQ	I/O	Host request
4	SDO0/SDO0_1	O	Serial data output 0
5	SDO1/SDO1_1	O	Serial data output 1
6	SDO2/SDI3/SDO2_1/SDI3_1	O	Serial data output 2 / Serial data input 3
7	SDO3/SDI2/SDO3_1/SDI2_1	O	Serial data output 3 / Serial data input 2
8	VCCS	-	SHI,ESAI,ESAI_1,DAX and Timer power
9	GNDS	-	SHI,ESAI,ESAI_1,DAX and Timer ground
10	SDO4/SDI1	O	Serial data output 4 / Serial data input 1
11	SDO5/SDI0	O	Serial data output 5 / Serial data input 0
12	FST	I/O	Frame sync for transmitter
13	FSR	I/O	Frame sync for receiver
14	SCKT	I/O	Transmitter serial clock
15	SCKR	I/O	Receiver serial clock
16	HCKT	I/O	High frequency clock for transmitter
17	HCKR	I/O	High frequency clock for receiver
18	VCCQL	-	Quite core (Low) power
19	GNDQ	-	Quite ground
20	VCCQH	-	Quite external (High) power
21	HDS/HWR	I	Host data strobe / Host write data
22	HRW/HRD	I	Host read write / Host read data
23	HACK/HRRQ	I	Host acknowledge / Receive host request
24	HOREQ/HTRQ	O	Host request / Transmit host request
25	VCCS	-	SHI,ESAI,ESAI_1,DAX and Timer power
26	GNDS	-	SHI,ESAI,ESAI_1,DAX and Timer ground
27	ADO	O	Digital audio data output
28	ACI	I	Audio clock input
29	TIO0	I/O	Timer 0 schmitt-trigger input/output
30	HCS/HA10	I	Host chip select / Host address 10
31	HA9/HA2	I	Host address 9 / Host address input 2
32	HA8/HA1	I	Host address 8 / Host address input 1
33	HAS/HA0	I	Host address strobe / Host address input 0
34~37	HAD7~HAD4	I/O	Host address/Data
38	VCCH	-	Host power
39	GNDH	-	Host ground
40~43	HAD3~HAD0	I/O	Host address/Data
44	RESET	I	Reset
45	VCCP	-	PLL power
46	PCAP	I	PLL capacitor
47	GNDP	-	PLL ground
48	SDO5_1/SDI0_1	I/O	Serial data output 5_1 / Serial data input 0_1
49	VCCQH	-	Quite external (High) power
50	FST_1	I/O	Frame sync for transmitter
51	AA2	O	Address attribute or Row address strobe
52	CAS	O	Column address strobe
53	SCKT_1	I/O	Transmitter serial clock_1
54	GNDQ	-	Quite ground
55	EXTAL	I	External clock input
56	VCCQL	-	Quite core (Low) power
57	VCCC	-	Bus control power
58	GNDC	-	Bus control ground

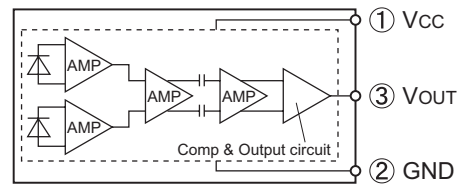
Pin No	Symbol	I/O	Function
59	FSR_1	I/O	Frame sync for receiver
60	SCKR_1	I/O	Receiver serial clock_1
61	PINIT/NMI	I	PLL initial / Nonmaskable interrupt
62	TA	I	Transfer acknowledge
63	BR	O	Bus request
64	BB	I/O	Bus busy
65	VCCC	-	Bus control power
66	GNDC	-	Bus control ground
67	WR	O	Write enable
68	RD	O	Read enable
69,70	AA1,AA0	O	Address attribute or row address strobe
71	BG	I	Bus grant
72,73	A0,A1	O	Data bus
74	VCCA	-	Address bus power
75	GNDA	-	Address bus ground
76~79	A2~A5	O	Data bus
80	VCCA	-	Address bus power
81	GNDA	-	Address bus ground
82~85	A6~A9	O	Data bus
86	VCCA	-	Address bus power
87	GNDA	-	Address bus ground
88,89	A10,A11	O	Data bus
90	GNDQ	-	Quite ground
91	VCCQL	-	Quite core (Low) power
92~94	A12~A14	O	Data bus
95	VCCQH	-	Quite core (High) power
96	GNDA	-	Address bus ground
97~99	A15~A17	O	Data bus
100~102	D0~D2	I/O	Data bus
103	VCCD	-	Data bus power
104	GNDD	-	Data bus ground
105~110	D3,D8	I/O	Data bus
111	VCCD	-	Data bus power
112	GNDD	-	Data bus ground
113~118	D9~D14	I/O	Data bus
119	VCCD	-	Data bus power
120	GNDD	-	Data bus ground
121~125	D15~D19	I/O	Data bus
126	VCCQL	-	Quite core (Low) power
127	GNDQL	-	Quite core (Low) ground
128	D20	I/O	Data bus
129	VCCD	-	Data bus power
130	GNDD	-	Data bus ground
131~133	D21~D23	I/O	Data bus
134	MODD/IRQD	I	Mode select D / External interrupt request D
135	MODC/IRQC	I	Mode select C / External interrupt request C
136	MODB/IRQB	I	Mode select B / External interrupt request B
137	MODA/IRQA	I	Mode select A / External interrupt request A
138	SDO4_1/SDI1_1	I/O	Serial data output 4_1 / Serial data input 1_1
139~142	TDO,TDI,TCK,TMS	O/I	Test data output,Test data input,Test clock,Test mode select
143	MOSI/HA0	I/O	SPI master-out-sleve-in / I2C slave address 0
144	MISO/SDA	I/O	SPI master-in-slave-out / I2C data and acknowledge

#### 4.15 GP1FA351RZ (J5521) : Fiber optic receiver

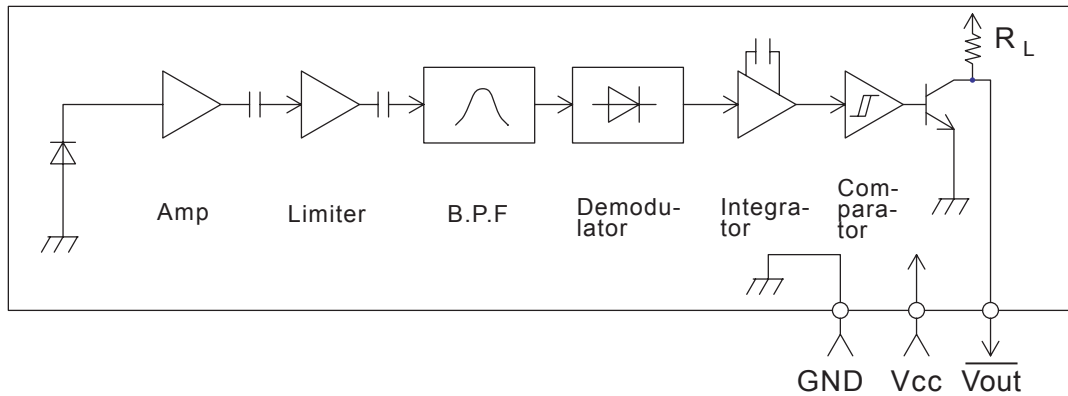
- Pin layout



- Block diagram

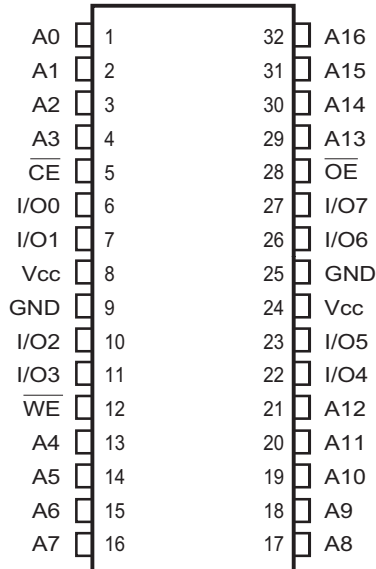


#### 4.16 GP1UM271XK (IC402) : IR detecting unit for remote control

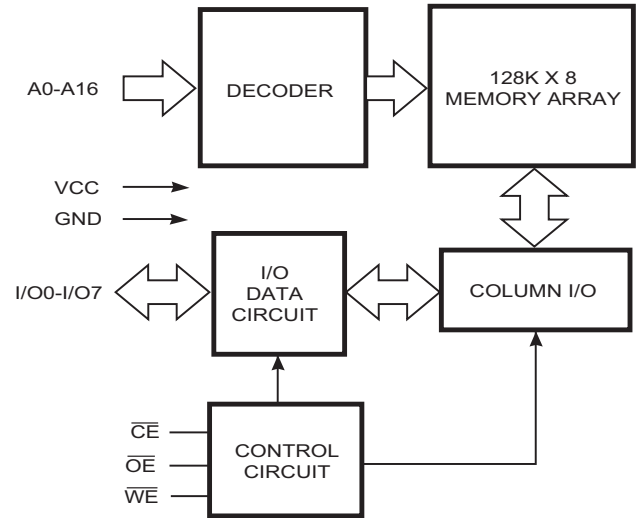


#### 4.17 IS63LV102410K-X (IC525/IC526/IC527) : SRAM

- Pin layout



- Block diagram



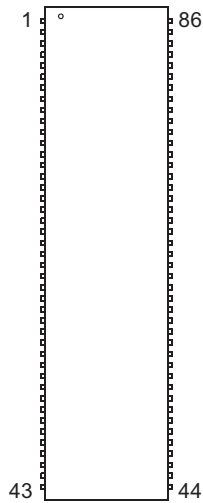
- Pin function

Pin No.	Symbol	I/O	Function
1-4	A0-A3	I	Address inputs
5	$\overline{CE}$	I	Chip enable input
6,7	I/O0, I/O1	I/O	Bidirectional ports
8	Vcc	-	Power
9	GND	-	Ground
10,11	I/O2, I/O3	I/O	Bidirectional ports
12	$\overline{WE}$	I	Write enable input

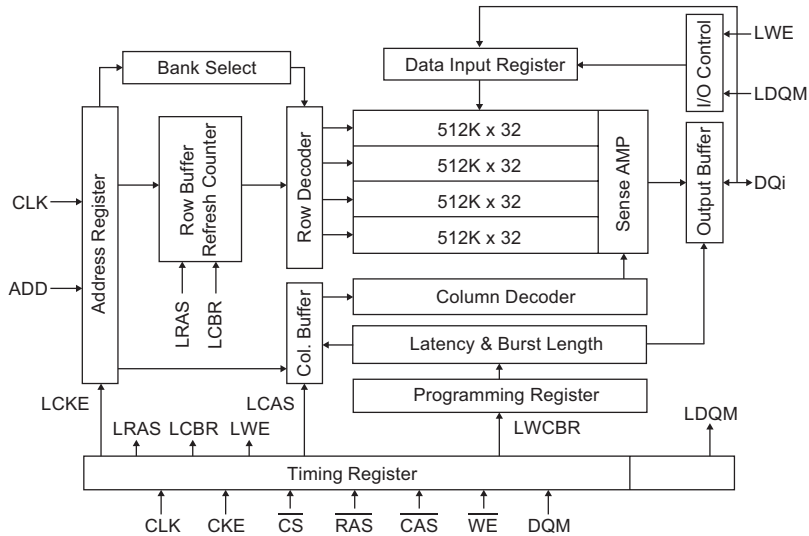
Pin No.	Symbol	I/O	Function
13-21	A4-A12	I	Address inputs
22,23	I/O4, I/O5	I/O	Bidirectional ports
24	Vcc	-	Power
25	GND	-	Ground
26,27	I/O6, I/O7	I/O	Bidirectional ports
28	$\overline{OE}$	I	Output enable input
29-32	A13-A16	I	Address inputs

4.18 K4S643232E-TC60 (IC505) : 512K x 32 bit x 4 banks synchronous DRAM

- Pin layout



- Block diagram



- Pin function

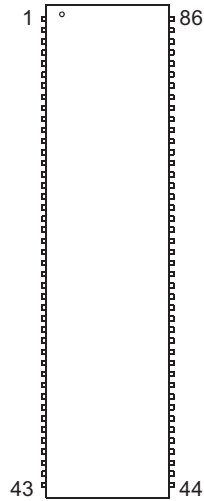
Pin No.	Symbol	Function
1	VDD	Power for the input buffers and core logic.
2	DQ0	Data input/output are multiplexed on the same pin.
3	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
4,5	DQ1,DQ2	Data inputs/outputs are multiplexed on the same pins.
6	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
7,8	DQ3,DQ4	Data inputs/outputs are multiplexed on the same pins.
9	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
10,11	DQ5,DQ6	Data inputs/outputs are multiplexed on the same pins.
12	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
13	DQ7	Data input/output are multiplexed on the same pin.
14	N.C	This pin is recommended to be left no connection on the device.
15	VDD	Power for the input buffers and core logic.
16	DQM0	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when DQM active.
17	$\overline{\text{WE}}$	Enables write operation and row precharge. Latches data in starting from CAS, WE active.
18	$\overline{\text{CAS}}$	Latches column addresses on the positive going edge of the CLK with CAS low. Enables column access.
19	$\overline{\text{RAS}}$	Latches row addresses on the positive going edge of the CLK with RAS low. Enables row access & precharge.
20	$\overline{\text{CS}}$	Disables or enables device operation by masking or enabling all inputs except CLK, CKE and DQM.
21	N.C	This pin is recommended to be left no connection on the device.
22,23	BA0,BA1	Selects bank to be activated during row address latch time. Selects bank for read/write during column address latch time.
24,25~27	A10,A0 - A2	Row/column addresses are multiplexed on the same pins. Row address : RA0 ~ RA10, Column address : CA0 ~ CA7
28	DQM2	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when DQM active.
29	VDD	Power for the input buffers and core logic.
30	N.C	This pin is recommended to be left no connection on the device.
31	DQ16	Data input/output are multiplexed on the same pin.
32	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
33,34	DQ17,DQ18	Data inputs/outputs are multiplexed on the same pins.
35	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
36,37	DQ19,DQ20	Data inputs/outputs are multiplexed on the same pins.
38	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
39,40	DQ21,DQ22	Data inputs/outputs are multiplexed on the same pins.
41	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
42	DQ23	Data input/output are multiplexed on the same pin.
43	VDD	Power for the input buffers and core logic.
44	VSS	Ground for the input buffers and core logic.
45	DQ24	Data input/output are multiplexed on the same pin.
46	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
47,48	DQ25,DQ26	Data inputs/outputs are multiplexed on the same pins.
49	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
50,51	DQ27,DQ28	Data inputs/outputs are multiplexed on the same pins.
52	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.

Pin No.	Symbol	Function
53,54	DQ29,DQ30	Data inputs/outputs are multiplexed on the same pins.
55	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
56	DQ31	Data input/output are multiplexed on the same pin.
57	N.C	This pin is recommended to be left no connection on the device.
58	VSS	Ground for the input buffers and core logic.
59	DQM3	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when DQM active.
60~66	A3 - A9	Row/column addresses are multiplexed on the same pins. Row address : RA0 - RA10, Column address : CA0 - CA7
67	CKE	Masks system clock to freeze operation from the next clock cycle. CKE should be enabled at least one cycle prior to new command. Disables input buffers for power down mode.
68	CLK	Active on the positive going edge to sample all inputs.
69,70	N.C	This pin is recommended to be left no connection on the device.
71	DQM1	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when DQM active.
72	VSS	Ground for the input buffers and core logic.
73	N.C	This pin is recommended to be left no connection on the device.
74	DQ8	Data input/output are multiplexed on the same pin.
75	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
76,77	DQ9,DQ10	Data inputs/outputs are multiplexed on the same pins.
78	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
79,80	DQ11,DQ12	Data inputs/outputs are multiplexed on the same pins.
81	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
82,83	DQ13,DQ14	Data inputs/outputs are multiplexed on the same pins.
84	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
85	DQ15	Data input/output are multiplexed on the same pin.
86	VSS	Ground for the input buffers and core logic.

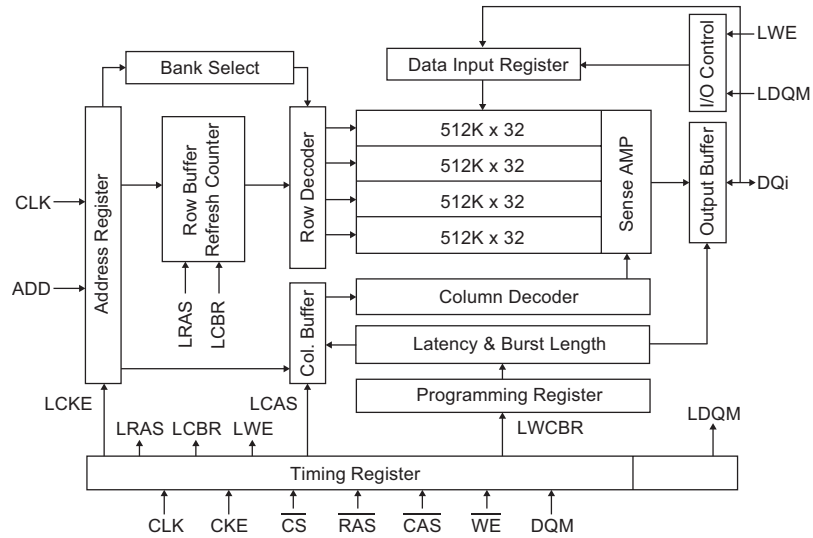


#### 4.19 K4S643232E-TC70 (IC505) : 512K x 32 bit x 4 banks synchronous DRAM

- Pin layout



- Block diagram



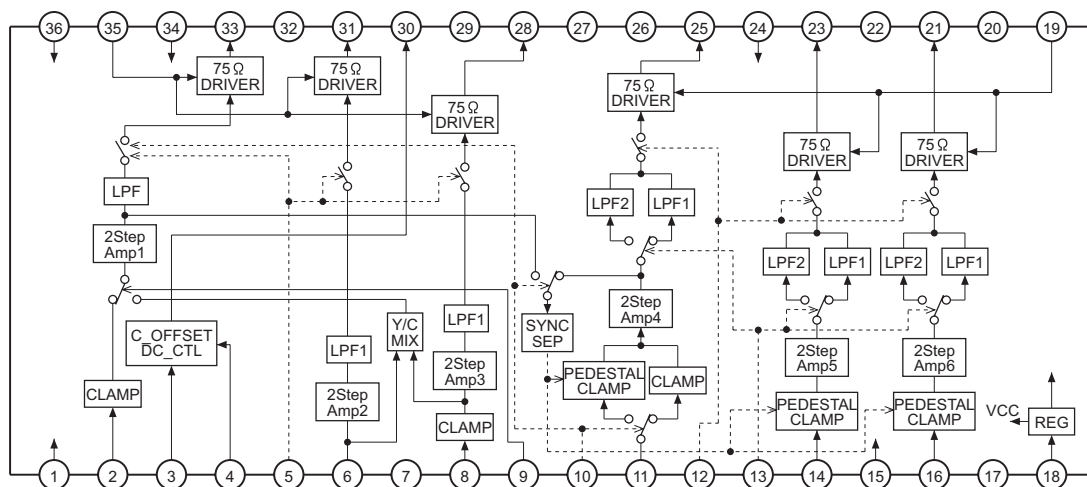
- Pin function

Pin No.	Symbol	Function
1	VDD	Power for the input buffers and core logic.
2	DQ0	Data input/output are multiplexed on the same pin.
3	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
4,5	DQ1,DQ2	Data inputs/outputs are multiplexed on the same pins.
6	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
7,8	DQ3,DQ4	Data inputs/outputs are multiplexed on the same pins.
9	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
10,11	DQ5,DQ6	Data inputs/outputs are multiplexed on the same pins.
12	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
13	DQ7	Data input/output are multiplexed on the same pin.
14	N.C	This pin is recommended to be left no connection on the device.
15	VDD	Power for the input buffers and core logic.
16	DQM0	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when DQM active.
17	$\overline{WE}$	Enables write operation and row precharge. Latches data in starting from CAS, WE active.
18	$\overline{CAS}$	Latches column addresses on the positive going edge of the CLK with CAS low. Enables column access.
19	$\overline{RAS}$	Latches row addresses on the positive going edge of the CLK with RAS low. Enables row access & precharge.
20	$\overline{CS}$	Disables or enables device operation by masking or enabling all inputs except CLK, CKE and DQM.
21	N.C	This pin is recommended to be left no connection on the device.
22,23	BA0,BA1	Selects bank to be activated during row address latch time. Selects bank for read/write during column address latch time.
24,25~27	A10,A0 - A2	Row/column addresses are multiplexed on the same pins. Row address : RA0 ~ RA10, Column address : CA0 ~ CA7
28	DQM2	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when DQM active.
29	VDD	Power for the input buffers and core logic.
30	N.C	This pin is recommended to be left no connection on the device.
31	DQ16	Data input/output are multiplexed on the same pin.
32	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
33,34	DQ17,DQ18	Data inputs/outputs are multiplexed on the same pins.
35	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
36,37	DQ19,DQ20	Data inputs/outputs are multiplexed on the same pins.
38	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
39,40	DQ21,DQ22	Data inputs/outputs are multiplexed on the same pins.
41	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
42	DQ23	Data input/output are multiplexed on the same pin.
43	VDD	Power for the input buffers and core logic.
44	VSS	Ground for the input buffers and core logic.
45	DQ24	Data input/output are multiplexed on the same pin.
46	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
47,48	DQ25,DQ26	Data inputs/outputs are multiplexed on the same pins.
49	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
50,51	DQ27,DQ28	Data inputs/outputs are multiplexed on the same pins.
52	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.

Pin No.	Symbol	Function
53,54	DQ29,DQ30	Data inputs/outputs are multiplexed on the same pins.
55	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
56	DQ31	Data input/output are multiplexed on the same pin.
57	N.C	This pin is recommended to be left no connection on the device.
58	VSS	Ground for the input buffers and core logic.
59	DQM3	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when DQM active.
60~66	A3 - A9	Row/column addresses are multiplexed on the same pins. Row address : RA0 - RA10, Column address : CA0 - CA7
67	CKE	Masks system clock to freeze operation from the next clock cycle. CKE should be enabled at least one cycle prior to new command. Disables input buffers for power down mode.
68	CLK	Active on the positive going edge to sample all inputs.
69,70	N.C	This pin is recommended to be left no connection on the device.
71	DQM1	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when DQM active.
72	VSS	Ground for the input buffers and core logic.
73	N.C	This pin is recommended to be left no connection on the device.
74	DQ8	Data input/output are multiplexed on the same pin.
75	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
76,77	DQ9,DQ10	Data inputs/outputs are multiplexed on the same pins.
78	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
79,80	DQ11,DQ12	Data inputs/outputs are multiplexed on the same pins.
81	VDDQ	Isolated power supply for the output buffers to provide improved noise immunity.
82,83	DQ13,DQ14	Data inputs/outputs are multiplexed on the same pins.
84	VSSQ	Isolated ground for the output buffers to provide improved noise immunity.
85	DQ15	Data input/output are multiplexed on the same pin.
86	VSS	Ground for the input buffers and core logic.

## 4.20 LA73054-X (IC231) : Video driver

### • Pin layout & Block diagram

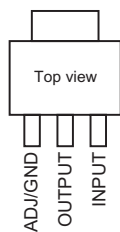


### • Pin function

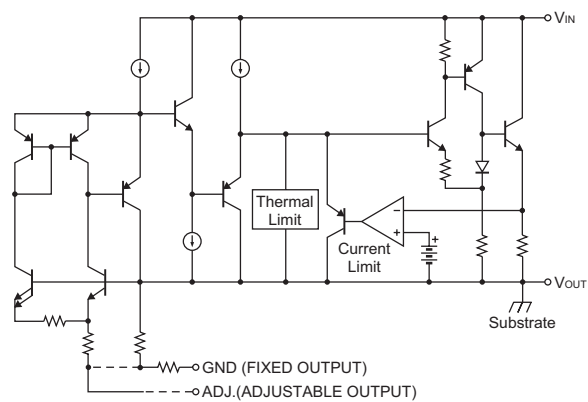
Pin No.	Symbol	I/O	Function
1	VCC1	-	VCC except for 75ohm driver
2	COMPOSITE.IN	I	Input composite
3	SQUEEZE.SW	I	Selecting squeeze mode
4	LETTER-BOX.SW	I	Selecting letter-box mode
5	MUTE-SW-1	I	Composite/S signal mute selection
6	C-IN	I	Input Chroma signal
7	GND11	-	Composite/S GND except for 75ohm driver
8	Y-IN-1	I	Input Y signal
9	YC-MIX.SW	I	Selecting of doing Y/C-MIX or not
10	SIGNAL-IN.SW	I	Selection of a kind of signal
11	Y-IN-2	I	Input component Y or baseband signal
12	MUTE-SW-2	I	Component signal mute selection
13	LPF.SW	I	Selection of a kind of component LPF
14	CB.IN	I	Input component or baseband signal
15	AMP.SW-2	I	Selecting amplifier gain for component signal
16	CR.IN	I	Input component or baseband signal
17	GND12	-	Component GND except for 75ohm driver
18	REG	O	Capacitor terminal for regulator
19	DRIVE.SW-2	I	2drive/1drive select for component signal
20	GND26	-	CR-GND for 75ohm driver
21	CR.OUT	O	75ohm driver output of pin16 input
22	GND25	-	CB-OUT for 75ohm driver
23	CB.OUT	O	75ohm driver output of pin14 input
24	VCC22	-	Component Vcc for 75ohm driver
25	Y-OUT-2	O	75ohm driver output of pin11 input
26	GND24	-	Component Y out for 75ohm driver
27	GND23	-	Y out for 75ohm driver
28	Y-OUT-1	O	75ohm driver output of pin8 input
29	GND22	-	Chroma out for 75ohm driver
30	C-DC.OUT	O	DC voltage output for S1,S2
31	C-OUT	O	75ohm driver output of pin6 input
32	GND21	-	Composite out for 75ohm driver
33	COMPOSITE-OUT	O	75ohm driver output of pin2 input
34	VCC21	-	Composite/S Vcc for 75ohm driver
35	DRIVE.SW-1	I	2drive/1drive select for composite/S signal
36	AMP.SW-1	I	Selecting amplifier gain for composite/S signal

#### 4.21 LM1117MP1.8-X (IC511) : Regulator

- Pin layout

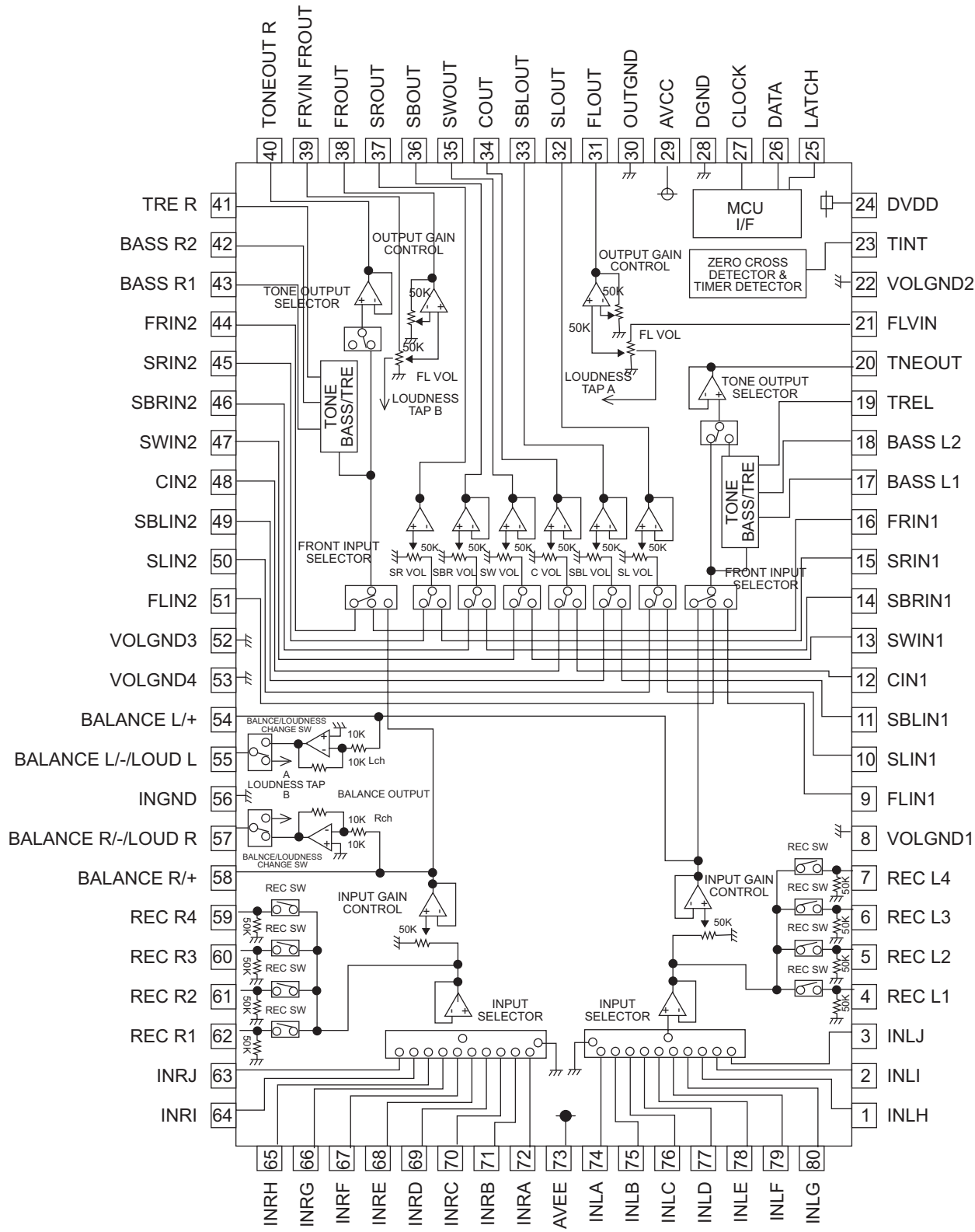


- Block diagram



4.22 M61516FP (IC551) : Sound controller

- Pin layout & Block diagram

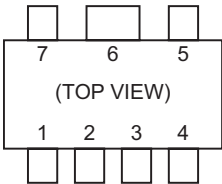


- Pin function

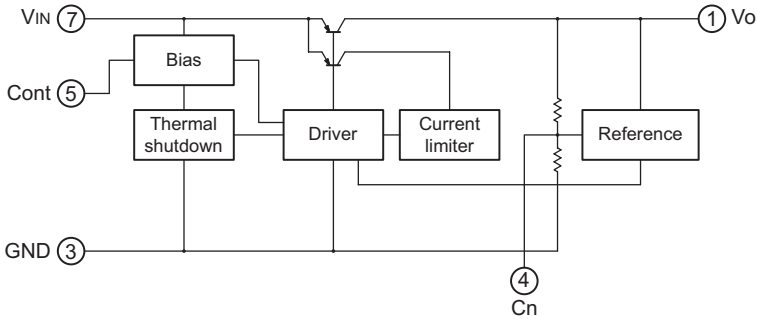
Pin No.	Symbol	Function
1~3	INLH,INLI,INLJ	Lch input
4~7	REC L1,REC L2,REC L3,REC L4	REC output
8	VOLGND1	Analog GND for vol.
9~12	FLIN1,SLIN1,SBLIN1,CIN1	FLch,SLch,SBLch,Cch input
13~16	SWIN1,SBRIN1,SRIN1,FRIN1	SWch,SBRch,SRch,FRch input
17,18	BASS L1,BASS L2	Tone path frequency characteristic setup
19	TRE L	Treble frequency characteristic setup
20	TONEOUT L	Tone output
21	FLVIN	FL vol. input
22	VOLGND2	Analog GND for vol.
23	TIM1	Timer setup
24	DVDD	Internal logic circuit Power supply terminal
25,26,27	LATCH,DATA,CLOCK	Latch,Data,Clock input for serial data transmission
28	DGND	Internal logic circuit GND terminal
29	AVCC	Internal analog circuit power supply terminal (+)
30	OUTGND	analog GND
31~34	FLOUT,SLOUT,SBLOUT,COUT	FLch,SLch,SBLch,Cch output
35~38	SWOUT,SBROUT,SROUT,FROUT	SWch,SBRch,SRch,FRch output
39	FRVIN	FR vol.input
40	TONEOUT R	Tone output
41	TRE R	Treble frequency characteristic setup
42,43	BASS R1,BASS R2	Tone path frequency characteristic setup
44~47	FRIN2,SRIN2,SBRIN2,SWIN2	FRch,SRch,SBRch,SWch input
48~51	CIN2,SBLIN2,SLIN2,FLIN2	Cch,SBLch,SLch,FLch input
52,53	VOLGND3,VOLGND4	Analog GND for vol.
54	BALANCE L/+	Lch balance output for ADC
55	BALANCE L/- LOUD L	Lch loudness frequency setup
56	INGND	Analog GND
57	BALANCE R/+	Rch balance output for ADC
58	BALANCE R/- LOUD R	Rch loudness frequency setup
59~62	REC R1,REC R2,REC R3,REC R4	REC input
63~66	INRJ,INRI,INRH,INRG	Rch input
67~70	INRF,INRE,INRD,INRC	Rch input
71,72	INRB,INRA	Rch input
73	AVEE	Internal analog circuit power supply terminal (-)
74~77	INLA,INLB,INLC,INLD	Lch input
78~80	INLE,INLF,INLG	Lch input

4.23 MM1561KF-X (IC593) : Regulator

- Pin layout



- Block diagram



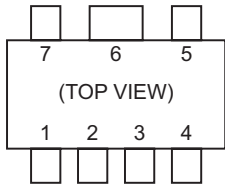
- Pin function

Pin No.	Symbol	Function						
1	Vo	Output pin						
2	NC	Not connect						
3	GND	Ground						
4	Cn	Noise decrease pin						
5	CONT	Control pin <div><table><tr><td>CONT</td><td>Output</td></tr><tr><td>H</td><td>ON</td></tr><tr><td>L</td><td>OFF</td></tr></table></div>	CONT	Output	H	ON	L	OFF
CONT	Output							
H	ON							
L	OFF							
6	Sub	Substrate pin, The 6pin must be connected to GND.						
7	VIN	Input pin						

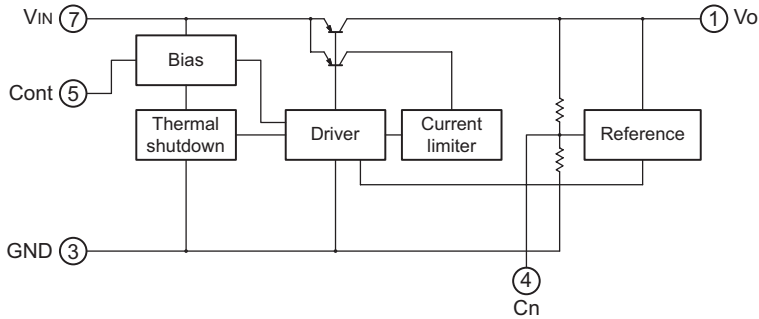


4.24 MM1563DF-X (IC592) : Regulator

- Pin layout



- Block diagram

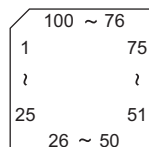


- Pin function

Pin No.	Symbol	Function						
1	Vo	Output pin						
2	NC	Not connect						
3	GND	Ground						
4	Cn	Noise decrease pin						
5	CONT	Control pin <table><tr><td>CONT</td><td>Output</td></tr><tr><td>H</td><td>ON</td></tr><tr><td>L</td><td>OFF</td></tr></table>	CONT	Output	H	ON	L	OFF
CONT	Output							
H	ON							
L	OFF							
6	Sub	Substrate pin, The 6pin must be connected to GND.						
7	VIN	Input pin						

**4.25 MN101C49GKR (IC271) : System micom**

- Pin layout



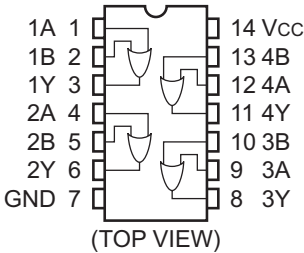
- Pin function

Pin No.	Symbol	I/O	Function
1	VREF-	-	Connect to ground
2	NTSEL(RGB--SEL)	I	NTSC/PAL discrimination (RGB/YC switching discrimination) signal
3	VCR-S/C	I	VCR S/Composite detection signal
4	DBS-S/C	I	DBS S/Composite detection signal
5	TH-DET	I	Heat sink temp. detection
6	SAFETY1	I	Short detection signal
7	VERSION	I	Version select switch signal
8	KEY-IN1	I	Key input1 (AD)
9	KEY-IN2	I	Key input2 (AD)
10	VREF+	-	Reference power supply
11	VDD	-	Power supply
12	OSC2	O	Oscillator output (8MHz)
13	OSC1	I	Oscillator input (8MHz)
14	GND	-	Ground
15,16	NC	-	Not used
17	GND	-	Ground
18	DI-DO	O	Panel serial communication data output
19	NC	-	Not used
20	DI-CK	O	Panel serial communication clock output
21	S2UDT/TX (DATA OUT)	O	Serial communication data output for PANTERA
22	S2UDT/RX (DATA IN)	I	Serial communication data input for PANTERA
23	SCLK/CLK	I	Serial communication clock for PANTERA
24	INTP	O	Transmit request for PANTERA communication
25	CPU-RESET	O	Reset signal for PANTERA
26	CS	I	Receive request for PANTERA communication (Interruption)
27	REMOCON	I	Remote control signal input (interruption)
28	PROTECT	I	Speaker protect detection
29	RDS ST	I	RDS communication strobe (Interruption)
30	NC	-	Not used
31	GND	-	Ground
32	VDD2/FLASH-VDD	-	VDD for Flash write
33	RESET-IN/RST	I	System control micom reset input
34	DSP-RST	O	DSP micom reset signal output
35	DSP-RDY	O	DSP micom ready signal
36	AVC-OUT	O	AV compulink signal output
37	AVC-IN	I	AV compulink signal input
38~40	NC	-	Not used
41	VPP/FLASH-VSS	-	VPP for Flash write
42	DSP-COM	O	DSP serial communication data output
43	DSP-STAT	I	DSP serial communication data input
44	DSP-CLK	O	DSP serial communication clock
45	VOL-DATA	O	VOLUME serial communication data output
46	VOL-LATCH	O	VOLUME serial communication strobe
47	VOL-CLK	O	VOLUME serial communication clock

Pin No.	Symbol	I/O	Function
48	NC	-	Not used
49	INT/PROG	O	Video driver filter select
50	RELAT-CTL	O	Speaker control
51	BASS	O	Bass boost control
52,53	NC	-	Not used
54	VIDEO-MUTE1	O	Video driver mute1 control
55	VIDEO-MUTE2	O	Video driver mute2 control
56	VIDEO-YCMIX	O	Video driver YCMIX control
57	VIDEO-RGB	O	Video driver RGB control
58	NC	-	Not used
59	INH	I	AC cut of detection
60	NC	-	Not used
61	HP	I	Headphone input detection
62	S-PON	O	System power supply control
63	AMP-PON	O	Power amp. power supply control
64	DVD-PON	O	DVD power supply control
65	TU-PON	O	TUNER power supply control
66	-	-	Not used
67	RDS-DATA	O	RDS communication data
68	RDS-CLK	O	RDS communication clock
69	NC	-	Not use
70	TU-DI	I	TUNER serial communication data input
71	NC	-	Not use
72	TU-DO	O	TUNER serial communication data output
73	TU-CLK	O	TUNER serial communication clock
74	TU-CE	O	TUNER serial communication CE
75	AM-BEAT	O	AM beat cut switching
76	S-MUTE	O	System mute
77,78	VS1,VS3	O	E version SLOW switch control
79	FAN-ON/OFF	O	Fan ON/OFF control
80	FAN-CTL	O	Fan speed control
81	STBY-LED	O	STANDBY LED control
82	DISC-SET	O	Read start signal output for Frontend
83	DISC-STOP	I	Receive eject permission signal from Frontend
84	SAFETY2	I	Short detection2
85,86	NC	-	Not used
87	VIDEO-SW1	O	Video select output1
88	VIDEO-SW2	O	Video select output2
89	VIDEO-SW3	O	Video select output3
90	BLANK-CTL	O	E version BLANKING select
91	DI-RST	O	Panel micom reset output
92	DI-CS	O	Panel micom serial communication chip select
93	NC	-	Not used
94	TOPEN	O	Mechanism open output
95	DAVSS	-	Ground
96	TCLOSE	O	Mechanism close output
97	LMMUTE	O	Loader mute output
98	SWOPEN	I	Mechanism switch open detection
99	SWUPDN	I	Mechanism switch close detection
100	DAVDD	-	Power supply

4.26 74LCX32MTC-X (IC522) : Quad 2 input OR gate

- Pin layout & Block diagram

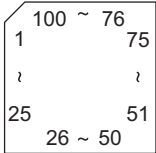


- Truth table

INPUTS		OUTPUT
A	B	Y
L	L	L
L	H	H
H	L	H
H	H	H

4.27 MN101C35DKW (IC401) : FL driver microcomputer

- Pin layout

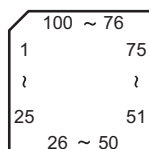


- Pin function

Pin No.	Symbol	I/O	Function
1	NC	-	Not connect
2	DATAIN	I	FL driver communication data input
3	CLOCK	I	FL driver communication clock input
4	NC	-	Not connect
5	INITIAL	I	FL driver communication CS(INITIAL)
6,7	NC	-	Not connect
8	B5V	-	VDD(B5V)
9	OSC2	O	8MHz main clock output
10	OSC1	I	8MHz main clock input
11,12	GND	-	Ground
13	NC	-	Not connect
14~23	GND	-	Ground
24	VREF+	-	Reference voltage
25	NC	-	Not connect
26	RESET	I	FL reset input
27	PROG_LED	O	PROGRAM LED switching signal
28	NC	O	Not connect
29	ILUMI_LED	O	Illumi LED switching signal
30~32	NC	-	Not connect
33~38	GND	-	Ground
39	PROG_DM	O	Program LED dimmer select
40	ILUMI_DIM	O	Illumi LED dimmer select
41~46	NC	-	Not connect
47	G1	O	Grid signal outputs
48~59	G2~G13	O	Grid signal outputs
60	G14	O	Grid signal outputs
61~64	NC	-	Not connect
65~99	S1~S35	O	Segment signal outputs
100	-VPP	-	VPP

**4.28MN102L62GLF3 (IC401) : Unit CPU**

## • Pin layout



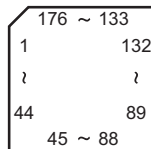
## • Pin function

Pin No.	Symbol	I/O	Function
1	WAIT	I	Micro computer wait signal input
2	RE	O	Read enable
3	/SPMUTE	O	Spindle muting output to IC251
4	WEN	O	Write enable
5	/LMMUTE	-	Not connect
6	CS1	O	Chip select for ODC
7	CS2	-	Chip select for ZIVA (Not connect.)
8	HDTYPE	O	HD TYPE selection
9	/DRVMUTE	O	Driver mute
10	SBRK	O	SP motor brake control
11	LSIRST	O	LSI reset
12	WOR0	O	Bus selection input
13-16	A0-A3	O	Address bus (0-3) for CPU
17	VDD	-	Power supply
18	SYSCLK	-	System clock signal output (Not connect.)
19	VSS	-	Ground
20	XI	-	Not use (Connect to VSS)
21	XO	-	Not connect
22	VDD	-	Power supply
23	OSCI	I	Clock signal input (13.5MHz)
24	OSCO	O	Clock signal output (13.5MHz) (Not connect.)
25	MODE	I	CPU mode selection input
26-33	A4-A11	O	Address bus (4-11) for CPU
34	VDD	-	Power supply
35-40	A12-A17	O	Address bus (12-17) for CPU
41	A18	-	Address bus 18 for CPU (Not connect.)
42	A19	-	Address bus 19 for CPU (Not connect.)
43	VSS	-	Ground
44	A20	-	Address bus 20 for CPU ( Not connect.)
45	DISCSTP	O	DISC STOP control
46	HAGUP	O	H/A gain control
47	TCLOSE	-	Not connect.
48	WOBBLEFIL	-	Not connect.
49	/HFMON	I	HF monitor
50	TRVSW	I	Detection switch of traverse in- side

Pin No.	Symbol	I/O	Function
51	SWUPDN	-	Not connect.
52	MECHA_H/V	I	Disc detection
53	DISCSET	O	Serial enable signal for ADSC
54	VDD	-	Power supply
55	FEPEN	O	Serial enable signal for FEP
56	SLEEP	O	Standby signal for FEP
57	BUSY	-	Not connect.
58	REQ	O	Communication request
59		-	Connect to TP405 (REQ)
60		-	Not connect.
61	VSS	-	Ground
62	EPCS	O	EEPROM chip select
63	EPSK	O	EEPROM clock
64	EPDI	I	EEPROM data input
65	EPDO	O	EEPROM data output
66	VDD	-	Power supply
67	SCLKO	I	Communication clock
68	S2UTD	I	Communication input data
69	U2SDT	O	Communication output data
70	CPSCK	O	Clock for ADSC serial
71	P74/SBI1	-	Connect to VSS
72	SDOUT	O	ADSC serial data output
73		-	Not use. (Pull-up to power supply)
74		-	Not use. (Pull-up to power supply)
75	NMI	-	Not use. (Pull-up to power supply)
76	ADSCIRQ	I	Interrupt input of ADSC
77	ODCIRQ	I	Interrupt input of ODC
78	DECIRQ	I	Interrupt input of ZIVA
79	CSSIRQ	I	Interrupt input of SODC
80	ODCIRQ2	I	Interruption of system control
81	ADSEP	I	Address data selection input (Pull-up to power supply)
82	RST	I	Reset input
83	VDD	-	Power supply
84-91	TEST1-TEST 8	I	Test signal (1-8) input (Not connect.)
92	VSS	-	Ground
93-100	D0-7	I/O	Data bus (0-7) of CPU

**4.29 MN103S26EGA (IC301) : Optical disc controller**

- Pin layout



- Pin function

Pin No.	Symbol	I/O	Function
1	NINT0	O	System control interruption 0
2	NINT1	O	System control interruption 1
3	VDD3	-	Power supply (3.3V)
4	VSS	-	Ground
5	NINT2	O	System control interruption 2
6	WAITODC	O	System control wait control
7	NMRST	-	System control reset (Not connect.)
8	DASPST	-	DASP signal initializing
9~17	CPUADR17 - 9	I	System control address
18	VDD18	-	Power supply (1.8V)
19	VSS	-	Ground
20	DRAMVDD18	-	Connect to VDD18
21	DRAMVSS	-	Connect to VSS
22~30	CPUADR8 - 0	I	System control address
31	VDD3	-	Power supply (3.3V)
32	VSS	-	Ground
33	DRAMVDD3	-	Connect to VDD3
34	NCS	I	System control chip select
35	NWR	I	System control write
36	NRD	I	System control read
37~44	CPUDT7 - 0	I/O	System control data
45	CLKOUT1	-	Not connect.
46	MMOD	I	Connect to VSS
47	NRST	I	System reset
48	MSTPOL	I	Master terminal polarity switch input (Connect to VSS.)
49	SCLOCK	-	Not connect.
50	SDATA	-	Not connect.
51	OFTR	I	Off track signal input
52	BDO	I	RF dropout/BCA data of making to binary
53~56	PWM1 - 4	-	Not connect.
57	VDD3	-	Power supply (3.3V)
58	DRAMVDD18	-	Connect to VDD18
59	DRAMVSS	-	Connect to VSS
60	VSS	-	Ground
61~64	PWM5 - 8	-	Not connect.
65	TBAL	O	Tracking balance adjustment output
66	FBAL	O	Focus balance adjustment output
67	TRSDRV	O	Traverse drive output
68	SPDRV	O	Spindle drive output
69	FG	I	Motor FG input
70	TILTP	-	Not connect.

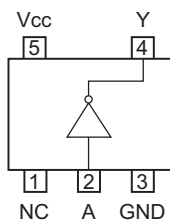
Pin No.	Symbol	I/O	Function
71	TILT	-	Not connect.
72	TILTN	-	Not connect.
73	TX	-	Not connect.
74	DTRD	-	Not connect.
75	IDGT	-	Not connect.
76	VDD18	-	Power supply (1.8V)
77	VSS	-	Ground
78	VDD3	-	Power supply (1.8V)
79	OSCI1	I	16.9MHz clock input
80	OSCO1	-	Not connect.
81	VSS	-	Ground
82	TSTSG	O	Calibration signal
83	VFOSHORT	O	VFO short output
84	JLINE	O	J-line setting output
85	AVSS	-	Analog ground
86	ROUT	-	Not connect.
87	LOUT	-	Not connect.
88	AVDD	-	Analog power supply
89	VCOF	I	JFVCO control voltage
90	TRCRS	I	Input signal for track cross formation
91	CMPIN	-	Not connect.
92	LPFOUT	-	Not connect.
93	LPFIN	I	Pull-up to VHALF
94	AVSS	-	Analog ground
95	HPFOUT	-	Not connect.
96	HPFIN	I	HPF input
97	CSLFLT	I	Pull-up to VHALF
98	RFOIF	-	Not connect.
99	AVDD	-	Analog power supply
100	PLFLT2	I	Connect to capacitor 2 for PLL
101	PLFLT1	I	Connect to capacitor 1 for PLL
102	AVSS	-	Analog ground
103	RVI	I	Connect to resistor for VREF reference current source
104	VREFH	I	Reference voltage input (2.2V)
105	PLPG	-	Not connect.
106	VHALF	I	Reference voltage input (1.65V)
107	DSLFL2	I	Connect to capacitor 2 for DSL
108	DSLFL1	I	Connect to capacitor 1 for DSL
109	AVDD	-	Analog power supply
110	NARF	I	Equivalence RF-
111	ARF	I	Equivalence RF+
112	JITOUT	O	Output for jitter signal monitor
113	AVSS	-	Analog ground
114	DAC0	O	Tracking drive output
115	DAC1	O	Focus drive output
116	AVDD	-	Analog power supply
117	AD0	I	Focus error input
118	AD1	I	Phase difference/3 beams tracking error

Pin No.	Symbol	I/O	Function
119	AD2	I	AS: Full adder signal
120	AD3	I	RF envelope input
121	AD4	I	DVD laser current control terminal
122	AD5	I	Tracking drive IC input offset
123	AD6	I	CD laser current control terminal
124	TECAPA	-	Not connect.
125	VDD3	-	Power supply (3.3V)
126	VSS	-	Ground
127~130	MONI0 - 3	O	Internal goods title monitor (Connect to TP306 - TP309)
131	NEJECT	I	Eject detection
132	NTRYCTL	I	Tray close detection
133	NDASP	I/O	ATAPI drive active / Slave connection I/O
134	NCS3FX	I	ATAPI host chip select (Not connect.)
135	NCS1FX	I	ATAPI host chip select (Not connect.)
136	DA2	I/O	ATAPI host address
137	DA0	I/O	ATAPI host address (Not connect.)
138	NPDIAG	I/O	ATAPI slave master diagnosis input
139	DA1	I/O	ATAPI host address (Not connect.)
140	NIOCS16	-	ATAPI output of selection of host data bus width (Not connect.)
141	INTRQ	O	ATAPI host interruption output
142	NDMACK	I	ATAPI host DMA response (Not connect.)
143	VDD3	-	Power supply (3.3V)
144	VSS	-	Ground
145	IORDI	-	ATAPI host ready output (Not connect.)
146	NIORD	I	ATAPI host read (Not connect.)
147	NIOWR	I/O	ATAPI host write
148	DMARQ	-	ATAPI host DMA request (Not connect.)
149~151	HDD15,HDD0,HDD14	I/O	ATAPI host data 15,0,14
152	VDD18	-	Power supply (1.8V)
153	PO	-	Connect to ground
154	UATASEL	I	Connect to VSS
155	VSS	-	Ground
156	VDD3	-	Power supply (3.3V)
157~159	HDD1,HDD13,HDD2	I/O	ATAPI data 1,13,2
160161	HDD12,HDD3	I/O	ATAPI data 12,3
162	VDD3	-	Power supply (3.3V)
163	VSS	-	Ground
164~166	HDD11,HDD4,HDD10	I/O	ATAPI data 11,4,10
167168	HDD5,HDD9	I/O	ATAPI data 5,9
169	VDD3	-	Power supply (3.3V)
170	VSS	-	Ground
171~173	HDD6,HDD8,HDD7	I/O	ATAPI data 6,8,7
174	VDDH	-	Reference power supply for ATAPI (5.0V)
175	NRESET	I	ATAPI host reset
176	MASTER	I/O	ATAPI master / Slave selection



**4.30 NC7S04P5-X (IC533) : Inverter**

- Pin layout & Block diagram



- Truth table

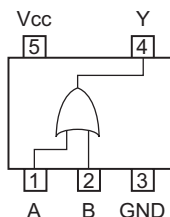
INPUT	OUTPUT
A	Y
L	H
H	L

H : HIGH logic level

L : LOW logic level

**4.31 NC7ST32P5-X (IC532) : 2-Input OR Gate**

- Pin layout & Block diagram



- Truth table

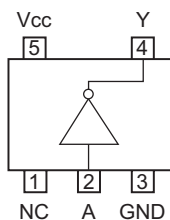
INPUTS		OUTPUT
A	B	Y
L	L	L
L	H	H
H	L	H
H	H	H

H : HIGH logic level

L : LOW logic level

**4.32 NC7SU04P5-X (IC522) : Inverter**

- Pin layout & Block diagram



- Truth table

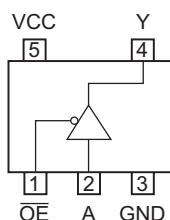
INPUT	OUTPUT
A	Y
L	H
H	L

H : HIGH logic level

L : LOW logic level

**4.33 NC7SZ125P5-X (IC523) : Bus buffer gate with 3-state output**

- Pin layout & Block diagram



- Truth table

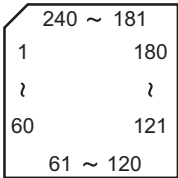
INPUTS		OUTPUT
$\overline{OE}$	B	Y
L	H	H
L	L	L
H	X	Z

X: Don't care

Z: High impedance

4.34 NDV8601VWA-BB (IC501) : DVD on a chip processor

- Pin layout



- Pin function

Pin No.	Symbol	I/O	Function
1	Vddio	-	Power supply (3.3V)
2,3	MD10,MD11	I/O	SDRAM data bus
4	Vdd	-	Power supply (1.8V)
5	MD12	I/O	SDRAM data bus
6	Vssio	-	Ground
7~9	MD13 - MD15	I/O	SDRAM data bus
10	Vddio	-	Power supply (3.3V)
11	DQM1	O	SDRAM data byte enable
12,13	MA9,MA8	O	SDRAM address bus
14	Vssio	-	Ground
15,16	MA7,MA6	O	SDRAM address bus
17	Vss	-	Ground
18	MA5	O	SDRAM address bus
19	Vddio	-	Power supply (3.3V)
20,21	MA4,MA3	O	SDRAM address bus
22	MCLK	O	SDRAM clock
23	Vssio	-	Ground
24	CKE	O	SDRAM clock enable
25,26	MA2,MA1	O	SDRAM address bus
27	Vddio	-	Power supply (3.3V)
28,29	MA0,MA10	O	SDRAM address bus
30	MA11	-	Not connect. (SDRAM address bus)
31	Vssio	-	Ground
32,33	MA12,MA13	O	SDRAM address bus, reserved for pin compatibility with 63-Mb SDRAM
34	Vdd	-	Power supply (1.8V)
35	CS0-	O	SDRAM primary bank chip select
36	Vddio	-	Power supply (3.3V)
37	RAS-	O	SDRAM command bit
38	CAS-	O	SDRAM command bit
39	WE-	O	SDRAM command bit
40	Vssio	-	Ground
41	DQM0	O	SDRAM data byte enable
42	DQM2	O	SDRAM data byte enable
43	MD16	I/O	SDRAM data bus
44	Vddio	-	Power supply (3.3V)
45,46	MD17,MD18	I/O	SDRAM data bus
47	Vss	-	Ground
48	MD19	I/O	SDRAM data bus
49	Vssio	-	Ground

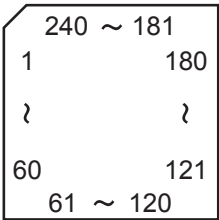
Pin No.	Symbol	I/O	Function
50~52	MD20 - MD22	I/O	SDRAM data bus
53	Vddio	-	Power supply (3.3V)
54~56	MD23 - MD25	I/O	SDRAM data bus
57	Vssio	-	Ground
58~61	MD26 - MD29	I/O	SDRAM data bus
62	Vddio	-	Power supply (3.3V)
63,64	MD30,MD31	I/O	SDRAM data bus
65	DQM3	O	SDRAM data byte enable
66	CS1-	-	Not connect. (SDRAM extension bank chip select)
67	Vsso	-	Ground
68	SPDIF	O	S/PDIF digital audio output
69	Vssio	-	Ground
70	AIN	I	Digital audio input for digital micro; can be used as GPIO
71	AOUT3	O	Serial audio output data to audio DAC for left and right channels for down-mixed stereo; can be used as GPIO
72	AOUT2	O	Serial audio output data to audio DAC for surround left and right channels; can be used as GPIO
73	AOUT1	O	Serial audio output data to audio DAC for center and LFE channels; can be used as GPIO
74	AOUT0	O	Serial audio output data to audio DAC for left and right channels; can be used as GPIO
75	Vddio	-	Power supply (3.3V)
76	PCMCLK	-	Not connect. (Audio DAC PCM sampling clock frequency, common clock for DACs and ADC; can be used as GPIO)
77	Vdd	-	Power supply (1.8V)
78	ACLK	O	Audio interface serial data clock, common clock for DACs and analog-to digital converter (ADC)
79	LRCLK	O	Left/Right channel clock, common clock for DACs and ADC
80	SRST	O	Active low RESET signal for peripheral reset
81	RSTP	I	RESET_Power from system, used to reset frequency synthesizer and rest of chip
82	Vssio	-	Ground
83	RXD1	I	UART1 serial data input from external serial device, used for IR receive; can be used as GPIO
84	SSPIN1	I/O	SSP1 data in or 16X clock for USART function in UART1; can be used as GPIO
85	Vss	-	Ground
86	SSPOUT1	I/O	SSP1 data out or UART1 data-terminal-ready signal; can be used as GPIO
87	SSPCLK1	I/O	SSP1 clock or UART1 clear-to-send signal; can be used as GPIO
88	SSPCLK0	I/O	SSP0 clock or request-to-send function in UART1; can be used as GPIO
89	Vdd	-	Power supply (1.8V)
90	SSPIN0	I/O	SSP0 data in or 16X clock for USART function in UART0; can be used as GPIO
91	Vddio	-	Power supply (3.3V)
92	SSPOUT0	I/O	SSP0 data out or UART0 data-terminal-ready signal; can be used as GPIO
93	TXD0	I/O	UART0 serial data output to an external serial device; can be used as GPIO
94	RXD0	I	UART0 serial data input from external serial device; can be used as GPIO
95	CTS0-	I/O	UART0 clear-to-send signal; can be used as GPIO
96	RTS0-	I/O	UART0 request-to-send signal; can be used as GPIO
97	Vssio	-	Ground
98	CXI	I	Crystal input pin for on-chip oscillator or system input clock
99	CXO	-	Not connect. (Crystal output pin for on-chip oscillator)
100	OSCVss	-	Oscillator ground
101	OSCVdd	-	Oscillator power supply (1.8V)
102	MVCKVdd	-	Main and video clock PLL power supply (3.3V)

Pin No.	Symbol	I/O	Function
103	SCEN	I	Scan chain test enable
104	MVCKVss	-	Main and video clock PLL ground
105	ACLKVss	-	Audio clock PLL ground
106	SCMD	I	Scan chain test mode
107	ACLKVdd	-	Audio clock PLL power supply (3.3V)
108	Vdddac	-	DAC digital power supply (1.8V)
109	Vssdac	-	DAC digital ground
110	Cr/R	O	Video DAC3 output (A second composite video; Cr output for composite, Cr output for component, Red output for SCART)
111	IOM	O	Cascaded DAC differential output used to dump current into external resistor for power
112	C/Cb/B	O	Video DAC2 output (Chrominance output for NTSC/PAL S-Video; Cb output for component, Blue output for SCART)
113	Vaa3	-	DAC analog power supply (3.3V)
114	Y/G	O	Video DAC1 output (Luminance for S-Video and component, G output for SCART)
115	Vssa	-	DAC analog ground
116	VREF	-	Not connect. (Input voltage reference (1.2V typical) for output DACs)
117	Vaa	-	Connect to power supply (1.8V)
118	CVBS/C	O	Video DAC output (Composite video; Chrominance output for S-Video)
119	RSET	O	Current setting resistor of output DACs
120	COMP	O	Compensation capacitor connection
121	Vss	-	Ground
122	VCLK	-	Not connect. (VCLK input/output for video I/O port function)
123	VSYN	-	Not connect. (Bi-directional HSYNC signal for devices that do not use end active video/start active video (EAV/SAV) codes; can be used as GPIO)
124	HSYN	-	Not connect. (Bi-directional VSYNC signal for devices that do not use end active video/start active video (EAV/SAV) codes; can be used as GPIO)
125	Vddio	-	Power supply (3.3V)
126~131	VIO7 - VIO2	-	Not connect. (Bi-directional digital video port data bus; can be used as GPIO)
132	Vssio	-	Ground
133,134	VIO1,VIO0	-	Not connect. (Bi-directional digital video port data bus; can be used as GPIO)
135	Vdd	-	Power supply (1.8V)
136~139	AD31 - AD28	I/O	uP multiplexed address/data bus
140	Vddio	-	Power supply (3.3V)
141~144	AD27 - AD24	I/O	uP multiplexed address/data bus
145	PWE3-	I/O	Byte write enable for FLASH, EEPROM, SRAM or peripherals
146	AD23	I/O	uP multiplexed address/data bus
147	Vssio	-	Ground
148~153	AD22 - AD17	I/O	uP multiplexed address/data bus
154	Vddio	-	Power supply (3.3V)
155	AD16	I/O	uP multiplexed address/data bus
156	PWE2-	I/O	Byte write enable for FLASH, EEPROM,SRAM or peripherals
157,158	AD15,AD14	I/O	uP multiplexed address/data bus
159	Vdd	-	Power supply (1.8V)
160	SCLK	O	External bus clock used for programmable host bus peripherals
161	ACK	I/O	Programmable WAIT-/ACK-/RDY- control
162	Vssio	-	Ground
163~168	AD13 - AD8	I/O	uP multiplexed address/data bus
169	Vddio	-	Power supply (3.3V)

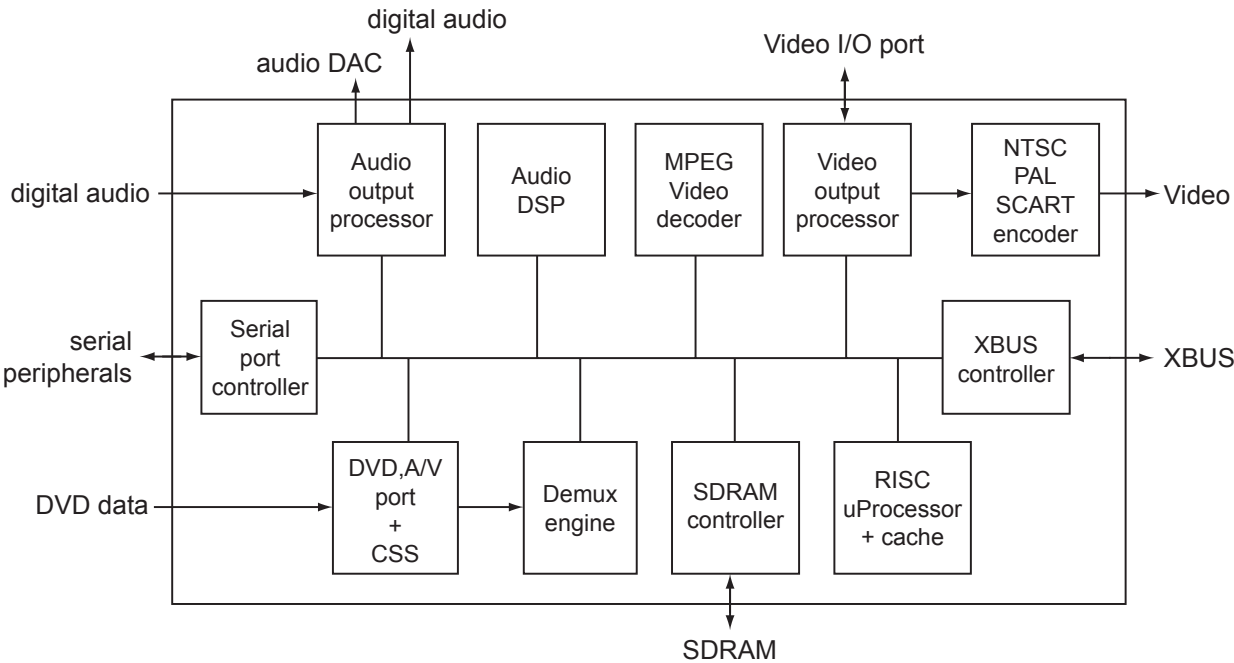
Pin No.	Symbol	I/O	Function
170	PWE1-	I/O	Byte write enable for FLASH, EEPROM,SRAM or peripherals
171	Vss	-	Ground
172~176	AD7 - AD3	I/O	uP multiplexed address/data bus
177	Vssio	-	Ground
178~180	AD2 - AD0	I/O	uP multiplexed address/data bus
181	Vddio	-	Power supply (3.3V)
182	PWE0-	I/O	Byte write enable for FLASH, EEPROM,SRAM or peripherals
183	ALE	I/O	Address latch enable
184~187	LA0 - LA3	I/O	Latched address [3:0]
188	Vssio	-	Ground
189	RD-	I/O	Read
190	LHLDA	O	Bus hold acknowledge in slave mode
191	LHLD	I	Bus hold request from external master in slave mode
192	Vdd	-	Power supply (1.8V)
193	PCS0	O	Peripheral chip select 0, generally used for enabling the program store ROM/FLASH
194,195	XIO1,XIO2	I/O	Programmable general purpose external input/output (XIO) also used as peripheral chip select, interrupt, Pulse Width Modulator (PWM) output and other system signals
196	Vddio	-	Power supply (3.3V)
197~200	XIO3 - XIO6	I/O	Programmable general purpose external input/output (XIO) also used as peripheral chip select, interrupt, Pulse Width Modulator (PWM) output and other system signals
201	Vss	-	Ground
202,203	XIO7,XIO8	I/O	Programmable general purpose external input/output (XIO) also used as peripheral chip select, interrupt, Pulse Width Modulator (PWM) output and other system signals
204	Vssio	-	Ground
205~209	XIO9 - XIO13	I/O	Programmable general purpose external input/output (XIO) also used as peripheral chip select, interrupt, Pulse Width Modulator (PWM) output and other system signals
210	Vddio	-	Power supply (3.3V)
211	XIO14	I/O	Programmable general purpose external input/output (XIO) also used as peripheral chip select, interrupt, Pulse Width Modulator (PWM) output and other system signal
212	Vdd	-	Power supply (1.8V)
213	DSYNC	I	DVD parallel mode Sector Sync
214	DREQ	O	DVD parallel mode Data Request
215	DCLK	I	Data sampling clock
216	DSTB	I	Parallel mode Data Valid, serial mode left/right clock
217	DVD0	I	DVD drive parallel data port
218	Vssio	-	Ground
219~223	DVD1 - DVD5	I	DVD drive parallel data port
224	Vddio	-	Power supply (3.3V)
225,226	DVD6,DVD7	I	DVD drive parallel data port
227	MD0	I/O	SDRAM data bus
228	Vssio	-	Ground
229	MD1	I/O	SDRAM data bus
230	Vss	-	Ground
231,232	MD2,MD3	I/O	SDRAM data bus
233	Vddio	-	Power supply (3.3V)
234~236	MD4 - MD6	I/O	SDRAM data bus
237	Vssio	-	Ground
238~240	MD7 - MD9	I/O	SDRAM data bus

4.35 NDV8601VWA-BE (IC501) : DVD on a chip processor

- Pin layout



- Block diagram



- Pin function

Pin No.	Symbol		Description
1	VDDio	-	Power supply terminal 3.3V
2,3	MD10,11	I/O	SDRAM Data bus terminal
4	VDD	-	Power supply terminal 1.8V
5	MD12	I/O	SDRAM Data bus terminal
6	VSSio	-	Connect to ground
7~9	MD13~15	I/O	SDRAM Data bus terminal
10	VDDio	-	Power supply terminal 3.3V
11	DQM1	O	SDRAM Data byte enable
12,13	MA9,8	O	SDRAM Address bus terminal
14	VSSio	-	Connect to ground
15,16	MA7,6	O	SDRAM Address bus terminal
17	VSS	-	Connect to ground
18	MA5	O	SDRAM Address bus terminal
19	VDDio	-	Power supply terminal 3.3V
20,21	MA4,3	O	SDRAM Address bus terminal
22	MCLK	O	SDRAM Clock output
23	VSSio	-	Connect to ground
24	CKE	O	SDRAM Clock enable output

Pin No.	Symbol		Description
25,26	MA2,1	O	SDRAM Address bus terminal
27	VDDio	-	Power supply terminal 3.3V
28	MA0	O	SDRAM Address bus terminal
29	MA10	O	SDRAM Address bus terminal
30	MA11	-	Non connect
31	VSSio	-	Connect to ground
32,33	MA12,13	O	SDRAM Address bus, reserved for terminal compatibility with 64Mb SDRAM
34	VDD	-	Power supply terminal 1.8V
35	CS0	O	SDRAM Primary bank chip select
36	VDDio	-	Power supply terminal 3.3V
37	RAS	O	SDRAM Command bit
38	CAS	O	SDRAM Command bit
39	WE	O	SDRAM Command bit
40	VSSio	-	Connect to ground
41	DQM0	O	SDRAM Data byte enable
42	DQM2	O	SDRAM Data byte enable
43	MD16	I/O	SDRAM Data bus terminal
44	VDDio	-	Power supply terminal 3.3V
45,46	MD17,18	I/O	SDRAM Data bus terminal
47	VSS	-	Connect to ground
48	MD19	I/O	SDRAM Data bus terminal
49	VSSio	-	Connect to ground
50~52	MD20~22	I/O	SDRAM Data bus terminal
53	VDDio	-	Power supply terminal 3.3V
54~56	MD23~25	I/O	SDRAM Data bus terminal
57	VSSio	-	Connect to ground
58~61	MD26~29	I/O	SDRAM Data bus terminal
62	VDDio	-	Power supply terminal 3.3V
63,64	MD30,31	I/O	SDRAM Data bus terminal
65	DQM3	O	SDRAM Data byte enable
66	CS1	O	SDRAM Extension bank chip select
67	VSSD	-	Connect to ground
68	SPDIF	O	S/PDIF Digital audio output terminal
69	VSSio	-	Connect to ground
70	AIN	I	Digital audio input for digital micro; can be used as GPIO
71	AOUT3	O	Serial audio output data to audio DAC for left and right channels for down-mix
72	AOUT2	O	Serial audio output data to audio DAC for surround left and right channels
73	AOUT1	O	Serial audio output data to audio DAC for center and LFE channels
74	AOUT0	O	Serial audio output data to audio DAC for left and right channels
75	VDDio	-	Power supply terminal 3.3V
76	PCMCLK	O	Audio DAC PCM sampling clock frequency, common clock for DACs and ADC
77	VDD	-	Power supply terminal 1.8V
78	ACLK	O	Audio interface serial data clock, common clock for DACs and AD converter
79	LRCLK	O	Left / right channel clock, common clock for DACs and ADC
80	SRST	O	Active low RESET signal for peripheral reset
81	RSTP	I	RESET_Power : from system, used to reset frequency synthesizer and rest of chip

Pin No.	Symbol		Description
82	VSSio	-	Connect to ground
83	RXD1	I	UART1 Serial data input from external serial device, used for IR receiver
84	SSPIN1	I/O	SSP1 Data in or 16X clock for USART function in UART1
85	VSS	-	Connect to ground
86	SSPOUT1	I/O	SSP1 Data out or UART1 data-terminal-ready signal
87	SSPCLK1	I/O	SSP1 Clock or UART1 clear-to -send signal
88	SSPCLK0	I/O	SSP0 Clock or request-to-send function in UART1
89	VDD	-	Power supply terminal 1.8V
90	SSPIN0	I/O	SSP0 Data in or 16X clock for USART function in UART0
91	VDDio	-	Power supply terminal 3.3V
92	SSPOUT0	I/O	SSP0 Data out or UART0 data-terminal-ready signal
93	TXD0	I/O	UART0 Serial data output to an external serial device
94	RXD0	I	UART0 Serial data input from external serial device
95	CTS0	I/O	UART0 Clear-to-send signal
96	RTS0	I/O	UART0 Request-to-send signal
97	VSSio	-	Connect to ground
98	CXI	I	Crystal input terminal for on-chip oscillator or system input clock
99	CXO	O	Crystal output terminal for on-chip oscillator
100	OSCVSS	-	Connect to ground for oscillator
101	OSCVDD	-	Power supply terminal for oscillator 1.8V
102	MVCKVDD	-	Power supply terminal for main and video clock PLL 3.3V
103	SCEN	I	Scan chain test enable
104	MVCKVSS	-	Connect to ground for main and video clock PLL
105	ACLKVSS	-	Connect to ground for audio clock PLL
106	SCMD	I	Scan chain test mode
107	ACLKVDD	-	Power supply terminal for audio clock PLL 3.3V
108	VDDDAK	-	Power supply terminal for DAC digital 1.8V
109	VSSDAC	-	Connect to ground for DAC digital
110	Cr/R	O	Video signal output (Cr output : composite/component Red output)
111	IOM	O	Cascaded DAC differential output used to dump current into external resistor for power
112	C/Cb/B	O	Video signal output (Chrominance output for NTSC/PAL S-Video
113	VAA3	-	Cb output for component Blue output)
114	Y/G	O	Power supply terminal for DAC analog 3.3V
115	VSSA	-	Video signal output (Luminance for S-Video and component Green output)
116	VREF	-	Connect to ground for DAC analog
117	VAA	-	Non connect
118	CVBS/C	O	Video signal output (Composite video Chrominance output for S-Video)
119	RSET	O	Current setting resistor of output DACs
120	COMP	O	Compensation capacitor connection
121	VSS	-	Connect to ground
122	VCLK	-	Non connect
123	VSNC	-	Non connect
124	HSYNC	-	Non connect
125	VDDio	-	Power supply terminal 3.3V
126~131	VI07~02	-	Non connect
132	VSSio	-	Connect to ground

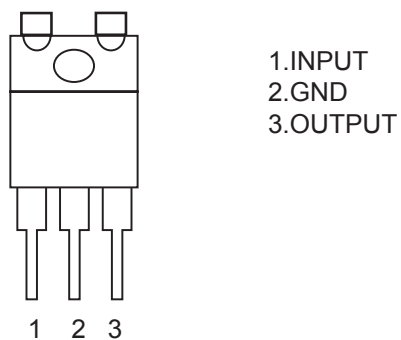


Pin No.	Symbol		Description
133,134	VI01,00	-	Non connect
135	VDD	-	Power supply terminal 1.8V
136~139	AD31~28	I/O	Multiplexed address / data bus terminal
140	VDDio	-	Power supply terminal
141~144	AD27~24	I/O	Multiplexed address / data bus terminal
145	PWE3	I/O	Byte write enable for FLASH,EEPROM,SRAM or peripherals terminal
146	AD23	I/O	Multiplexed address / data bus terminal
147	VSSio	-	Connect to ground
148~153	AD22~17	I/O	Multiplexed address / data bus terminal
154	VDDio	-	Power supply terminal 3.3V
155	AD16	I/O	Multiplexed address / data bus terminal
156	PWE2	I/O	Byte write enable for FLASH,EEPROM,SRAM or peripherals terminal
157,158	AD15,14	I/O	Multiplexed address / data bus terminal
159	VDD	-	Power supply terminal 1.8V
160	SCLK	O	External bus clock used for programmable host peripherals
161	ACK	I/O	Programmable WAIT/ACK/RDY control
162	VSSio	-	Connect to ground
163~168	AD13~8	I/O	Multiplexed address / data bus terminal
169	VDDio	-	Power supply terminal 3.3V
170	PWE1	I/O	Byte write enable for FLASH,EEPROM,SRAM or peripherals terminal
171	VSS	-	Connect to ground
172~176	AD7~3	I/O	Multiplexed address / data bus terminal
177	VSSio	-	Connect to ground
178~180	AD2~0	I/O	Multiplexed address / data bus terminal
181	VDDio	-	Power supply terminal 3.3V
182	PWE0	I/O	Byte write enable for FLASH,EEPROM,SRAM or peripherals terminal
183	ALE	I/O	Address latch enable
184~187	LA0~3	I/O	Latched address 0~3
188	VSSio	-	Connect to ground
189	RD	I/O	Read terminal
190	LHLDA	O	Bus hold acknowledge in slave mode
191	LHLD	I	Bus hold request from external master in slave mode
192	VDD	-	Power supply terminal 1.8V
193	PCS0	O	Peripheral chip select 0, generally used for enabling the program store ROM/FLASH
194,195	XI01,02	I/O	Programmable general purpose external input/output
196	VDDio	-	Power supply terminal 3.3V
197~200	XI03~06	I/O	Programmable general purpose external input/output
201	VSS	-	Connect to ground
202,203	XI07,08	I/O	Programmable general purpose external input/output
204	VSSio	-	Connect to ground
205	XI09	I/O	Programmable general purpose external input/output
206~209	XID10~13	I/O	Programmable general purpose external input/output
210	VDDio	-	Power supply terminal 3.3V
211	XID14	I/O	Programmable general purpose external input/output
212	VDD	-	Power supply terminal 1.8V
213	DSYNC	I	DVD Parallel mode sector sync

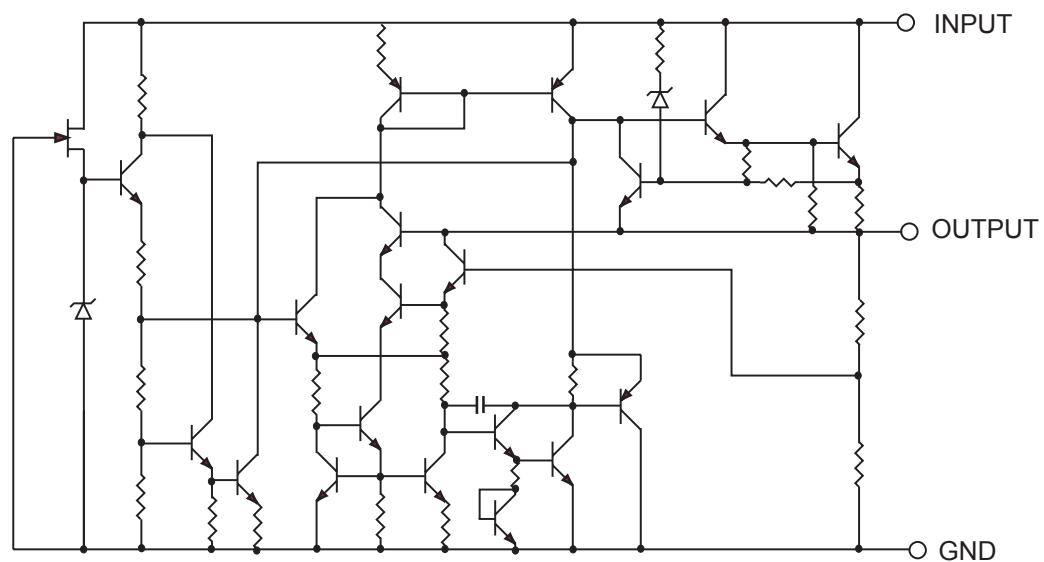
Pin No.	Symbol		Description
214	DREQ	O	DVD Parallel mode data request
215	DCLK	I	Data sampling clock
216	DSTB	I	Parallel mode data valid, serial mode left/right clock
217	DVD0	I	DVD Drive parallel data port
218	VSSio	-	Connect to ground
219~223	DVD1~5	I	DVD Drive parallel data port
224	VDDio	-	Power supply terminal 3.3V
225,226	DVD6,7	I	DVD Drive parallel data port
227	MD0	I/O	SDRAM Data bus terminal
228	VSSio	-	Connect to ground
229	MD1	I/O	SDRAM Data bus terminal
230	VSS	-	Connect to ground
231,232	MD2,3	I/O	SDRAM Data bus terminal
233	VDDio	-	Power supply terminal 3.3V
234~236	MD4~6	I/O	SDRAM Data bus terminal
237	VSSio	-	Connect to ground
238~240	MD7~9	I/O	SDRAM Data bus terminal

#### 4.36 NJM78M05FA (IC291) : Regulator

- Terminal layout

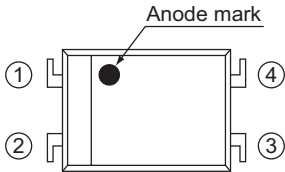


- Block diagram

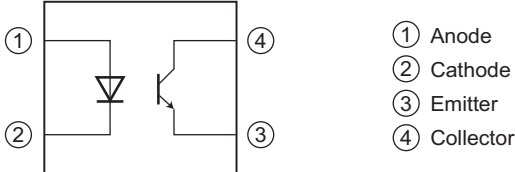


4.37 PC123Y02 (IC102/IC103/IC104/IC122/IC123) : Photocoupler

- Pin layout

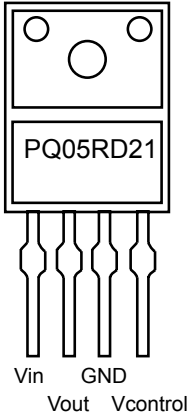


- Block diagram

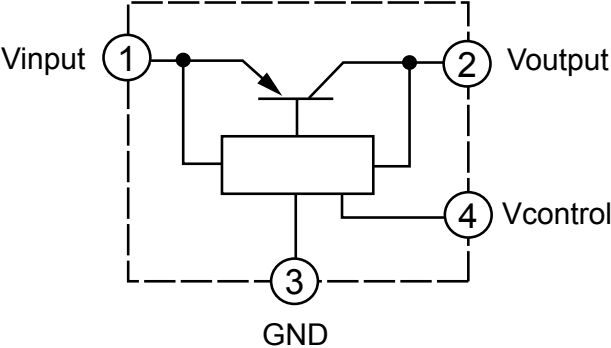


4.38 PQ05RD21 (IC171) : Regulator

- Terminal layout

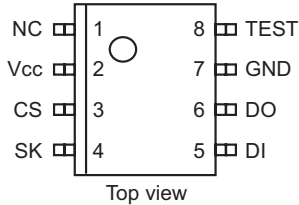


- Block diagram



4.39 S-93C66AFJ-X (IC451) : Serial EEPROM

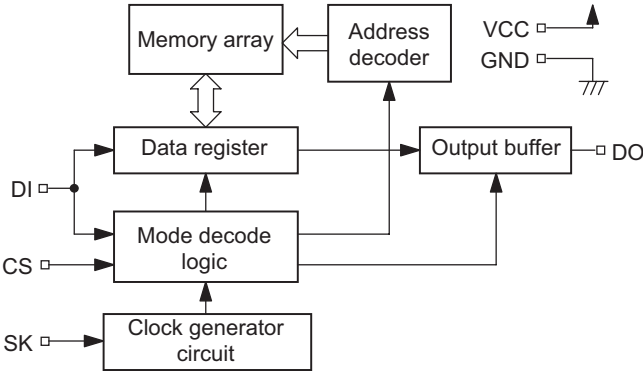
- Pin layout



- Pin function

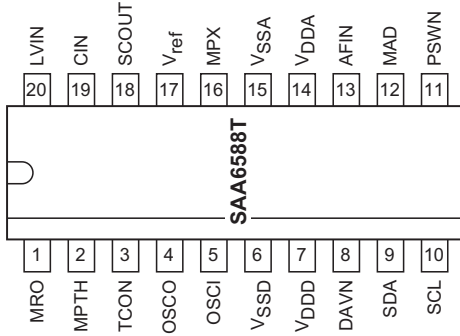
Pin No.	Symbol	Function
1	NC	Not connect
2	Vcc	Power supply
3	CS	Chip select input
4	SK	Serial clock input
5	DI	Serial data input
6	DO	Serial data output
7	GND	Ground
8	TEST	TEST pin:Open

- Block diagram



#### 4.40 SAA6588T/V2-X (IC201) : RDS decoder

• Pin layout

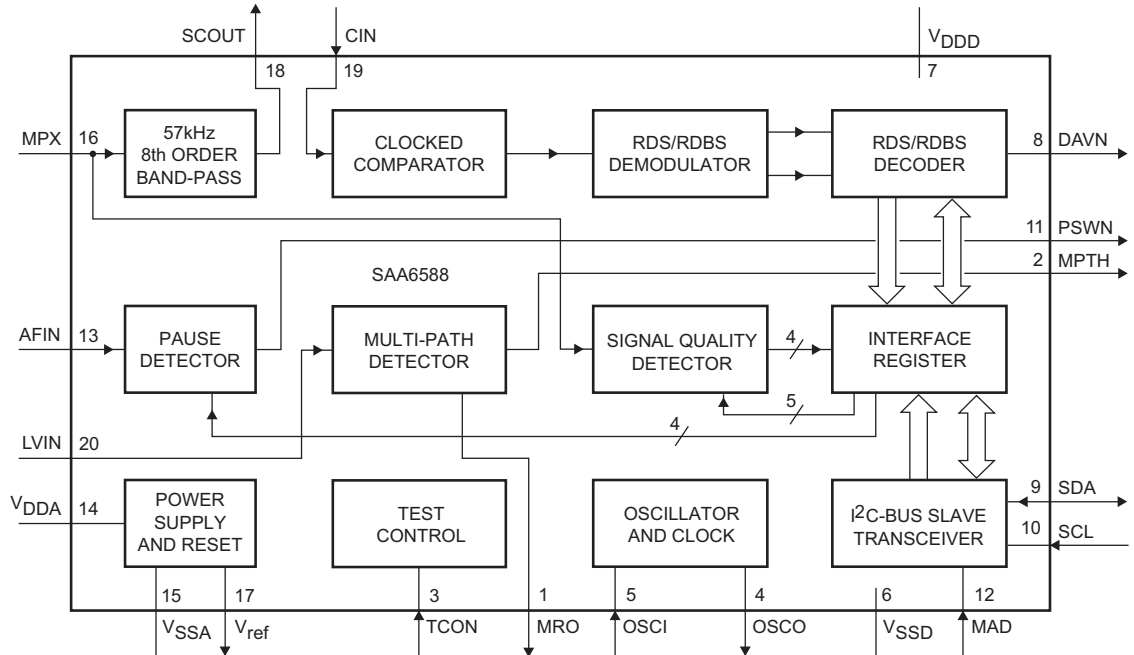


• Pin function

Pin No.	Symbol	I/O	Function
1	MRO	O	Multi-path rectifier output
2	MPTH	O	Multi-path detector output
3	TCON	I	Test control input pin
4	OSCO	O	Oscillator output
5	OSCI	I	Oscillator input
6	VSSD	-	Digital ground (0V)
7	VDDD	-	Digital supply voltage (5V)
8	DAVN	O	Data available output (active LOW)
9	SDA	I/O	I <sup>2</sup> C-bus serial data I/O
10	SCL	I	I <sup>2</sup> C-bus serial clock input

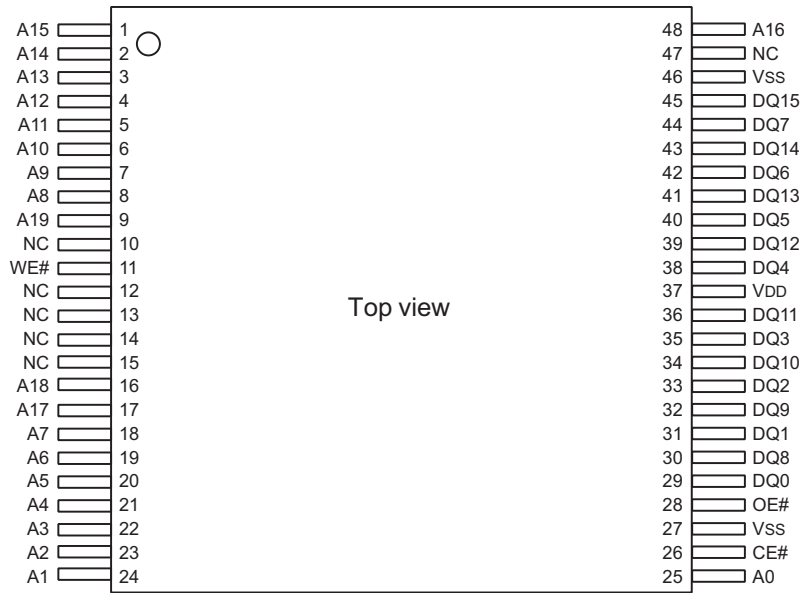
Pin No.	Symbol	I/O	Function
11	PSWN	O	Pause switch output (active LOW)
12	MAD	I	Slave address (LSB) input
13	AFIN	I	Audio signal input
14	VDDA	-	Analog supply voltage (5V)
15	VSSA	-	Analog ground (0V)
16	MPX	I	Multiplex input signal
17	Vref	O	Reference voltage output
18	SCOUT	O	Band-pass filter output
19	CIN	I	Comparator input
20	LVIN	I	Level input

• Block diagram

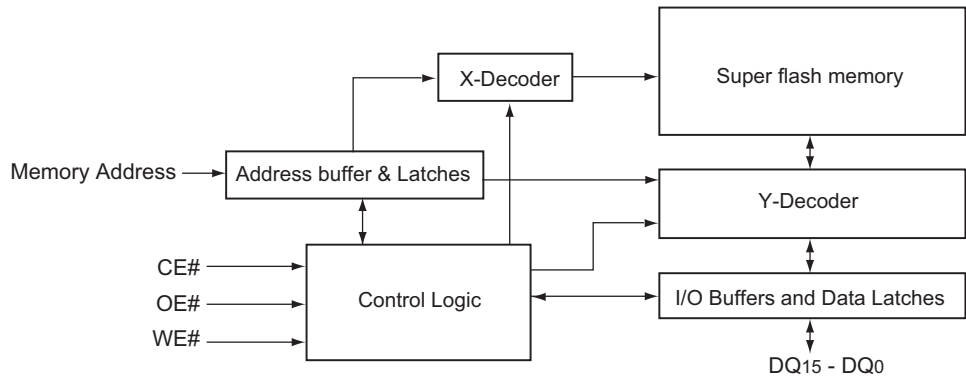


4.41 SST39VF160-7CEK (IC509) : 16 Mbit multi-purpose flash memory

- Pin layout



- Block diagram

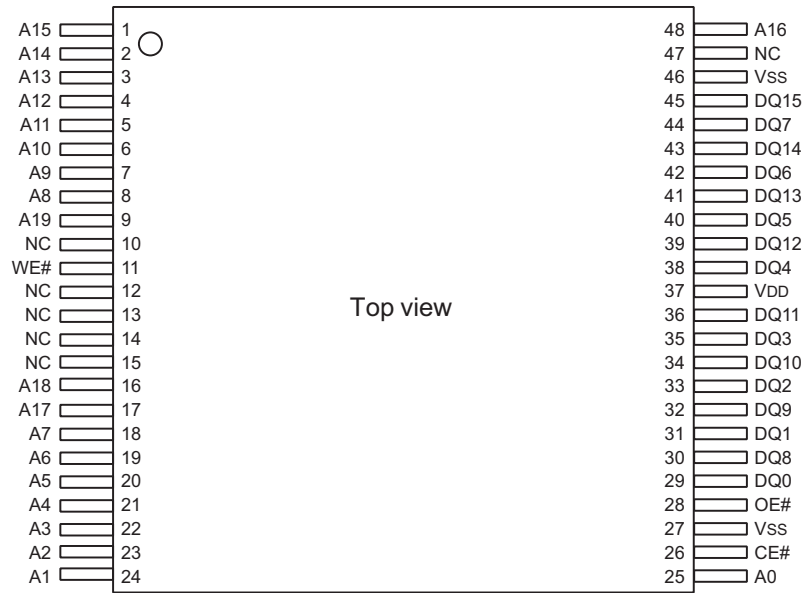


- Pin function

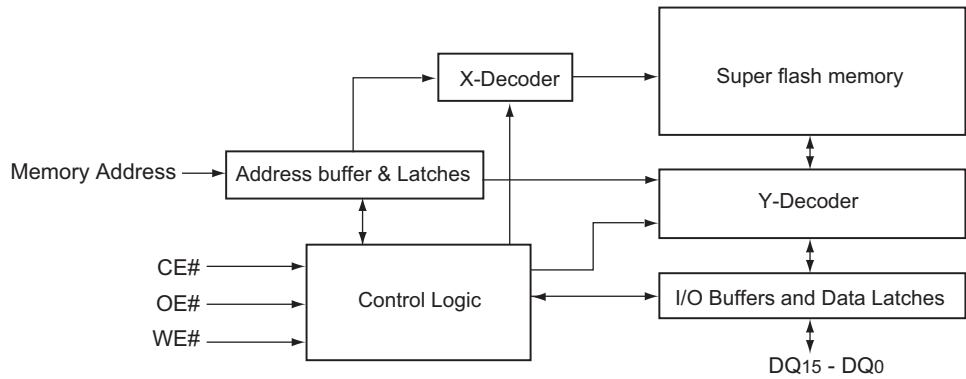
Pin No.	Symbol	I/O	Function
1-9	A15-A8,A19	I	Address inputs : To provide memory addresses. During Sector-Erase A19-A11 address lines will select the sector. During Block-Erase, A19-A15 address line will select the block.
10	NC	-	No connection : Unconnected pins
11	WE#	I	Write Enable : To control the Write operations
12-15	NC	-	No connection : Unconnected pins
16-25	A18,A17,A7-A0	I	Address inputs : To provide memory addresses. During Sector-Erase A19-A11 address lines will select the sector. During Block-Erase, A19-A15 address line will select the block.
26	CE#	I	Chip Enable : To activate the device when CE# is low.
27	VSS	-	Ground
28	OE#	I	Output Enable : To gate the data output buffers
29-36	DQ0,DQ8,DQ1 DQ9,DQ2,DQ10 DQ3,DQ11	I/O	Data input/output : To output data during Read cycles and receive input data during write cycles. Data is internally latched during a write cycle. The outputs are in tri-state when OE# or CE# is high.
37	VDD	-	Power supply : To provide power supply voltage (2.7-3.6V)
38-45	DQ4,DQ12,DQ5 DQ13,DQ6,DQ14 DQ7,DQ15	I/O	Data input/output : To output data during Read cycles and receive input data during write cycles. Data is internally latched during a write cycle. The outputs are in tri-state when OE# or CE# is high.
46	VSS	-	Ground
47	NC	-	No connection : Unconnected pins
48	A16	I	Address input : To provide memory address. During Sector-Erase A19-A11 address lines will select the sector. During Block-Erase, A19-A15 address line will select the block.

4.42 SST39VF160-9CEK (IC509) : 16 Mbit multi-purpose flash memory

- Pin layout



- Block diagram



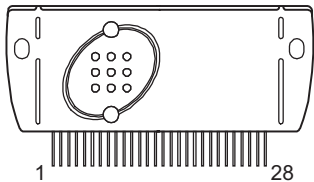


- Pin function

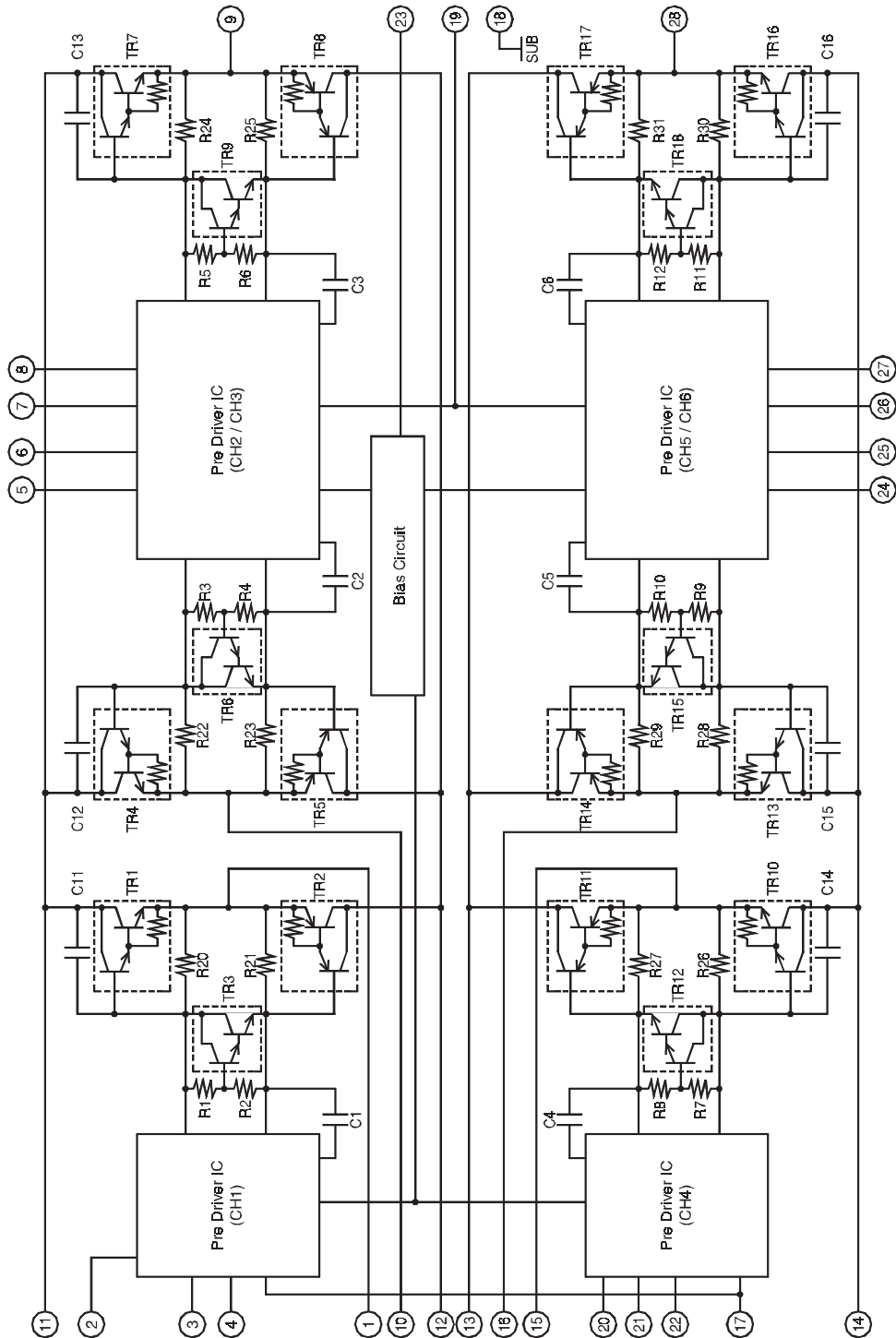
Pin No.	Symbol	I/O	Function
1~9	A15 - A8,A19	I	Address inputs : To provide memory addresses. During Sector-Erase A19 - A11 address lines will select the sector. During Block-Erase, A19 - A15 address line will select the block.
10	NC	-	No connection : Unconnected pins
11	WE#	I	Write Enable : To control the Write operations
12~15	NC	-	No connection : Unconnected pins
16~25	A18,A17,A7 - A0	I	Address inputs : To provide memory addresses. During Sector-Erase A19 - A11 address lines will select the sector. During Block-Erase, A19 - A15 address line will select the block.
26	CE#	I	Chip Enable : To activate the device when CE# is low.
27	VSS	-	Ground
28	OE#	I	Output Enable : To gate the data output buffers
29~36	DQ0,DQ8,DQ1 DQ9,DQ2,DQ10 DQ3,DQ11	I/O	Data input/output : To output data during Read cycles and receive input data during write cycles. Data is internally latched during a write cycle. The outputs are in tri-state when OE# or CE# is high.
37	VDD	-	Power supply : To provide power supply voltage (2.7 - 3.6V)
38~45	DQ4,DQ12,DQ5 DQ13,DQ6,DQ14 DQ7,DQ15	I/O	Data input/output : To output data during Read cycles and receive input data during write cycles. Data is internally latched during a write cycle. The outputs are in tri-state when OE# or CE# is high.
46	VSS	-	Ground
47	NC	-	No connection : Unconnected pins
48	A16	I	Address input : To provide memory address. During Sector-Erase A19 - A11 address lines will select the sector. During Block-Erase, A19 - A15 address line will select the block.

4.43 STK403-430 (IC721) : Power amplifier

- Pin layout

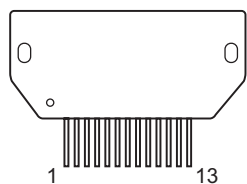


- Block diagram

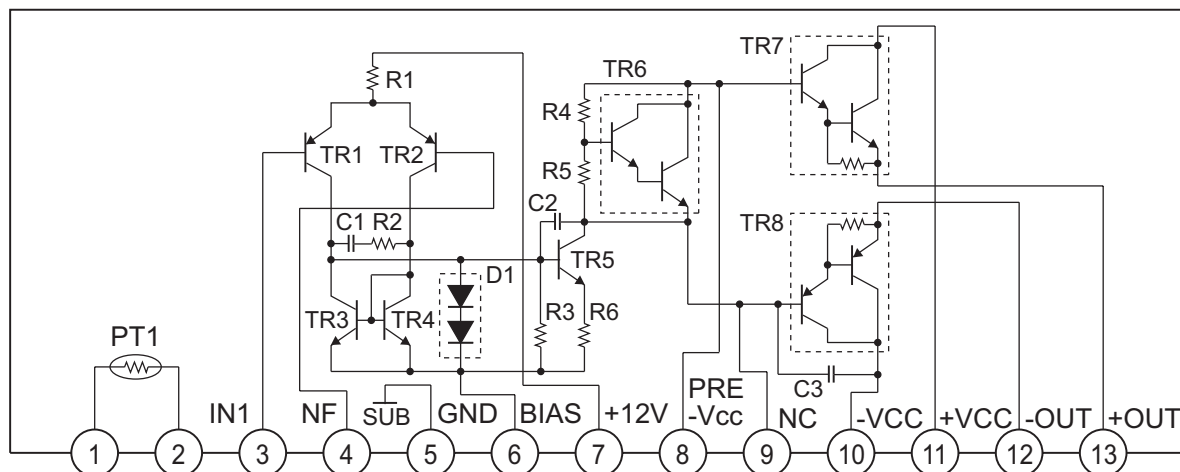


#### 4.44 STK404-130 (IC701) : Power amplifier

- Pin layout



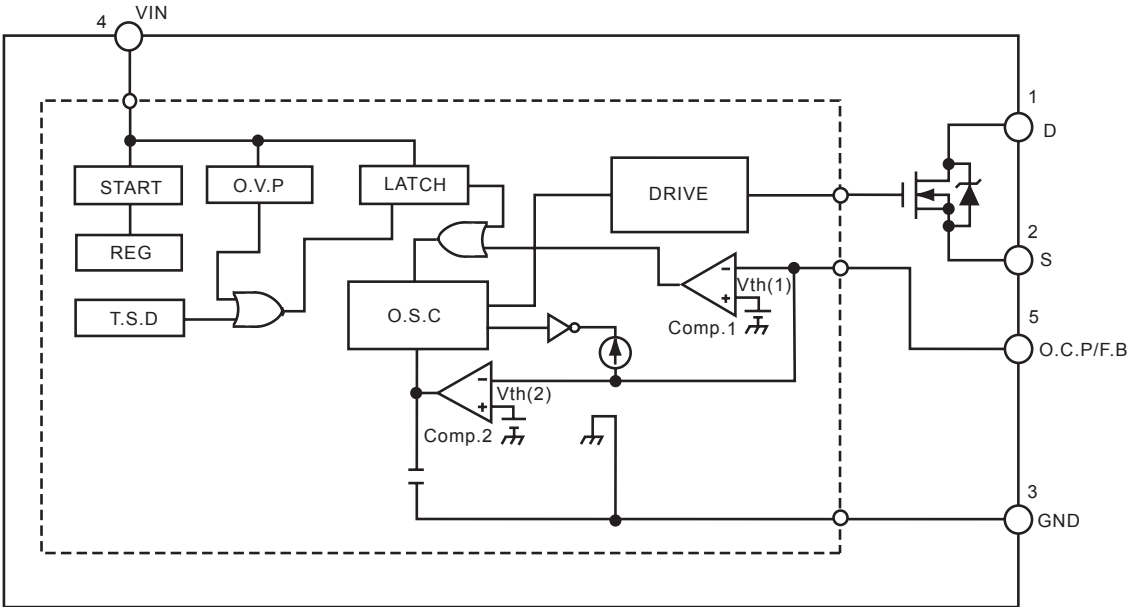
- Block diagram





# 4.46 STR-G6651 (IC121) : Switching regulator

- Block diagram



- Pin function

Pin No.	Symbol	Description	Function
1	D	Drain terminal	MOS FET drain
2	S	Source terminal	MOS FET source
3	GND	Ground terminal	Ground
4	Vin	Power supply terminal	Input of power supply for control circuit
5	O.C.P/F.B	Over current / Feedback terminal	Input of over current detection signal and constant voltage control signal

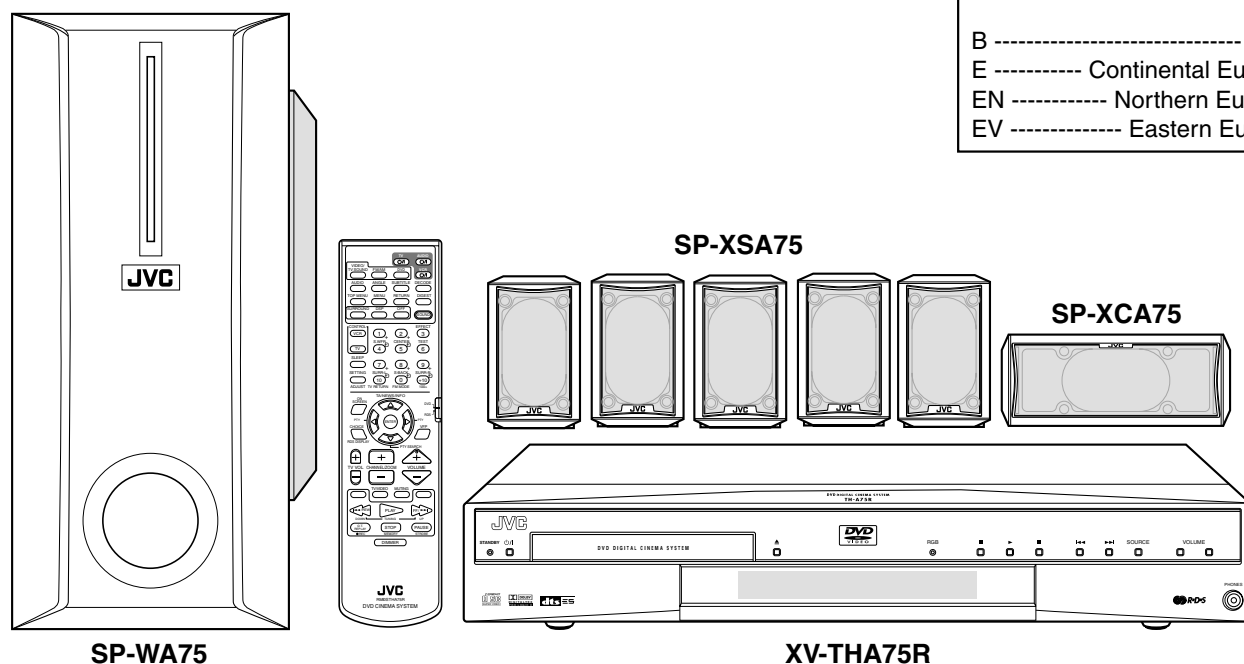
# JVC

## SCHEMATIC DIAGRAMS

### DVD DIGITAL CINEMA SYSTEM

## TH-A75R

CD-ROM No.SML200302



### Contents

Block diagrams .....	2-1
Standard schematic diagrams .....	2-4
Printed circuit boards .....	2-15~21

### MC-Service

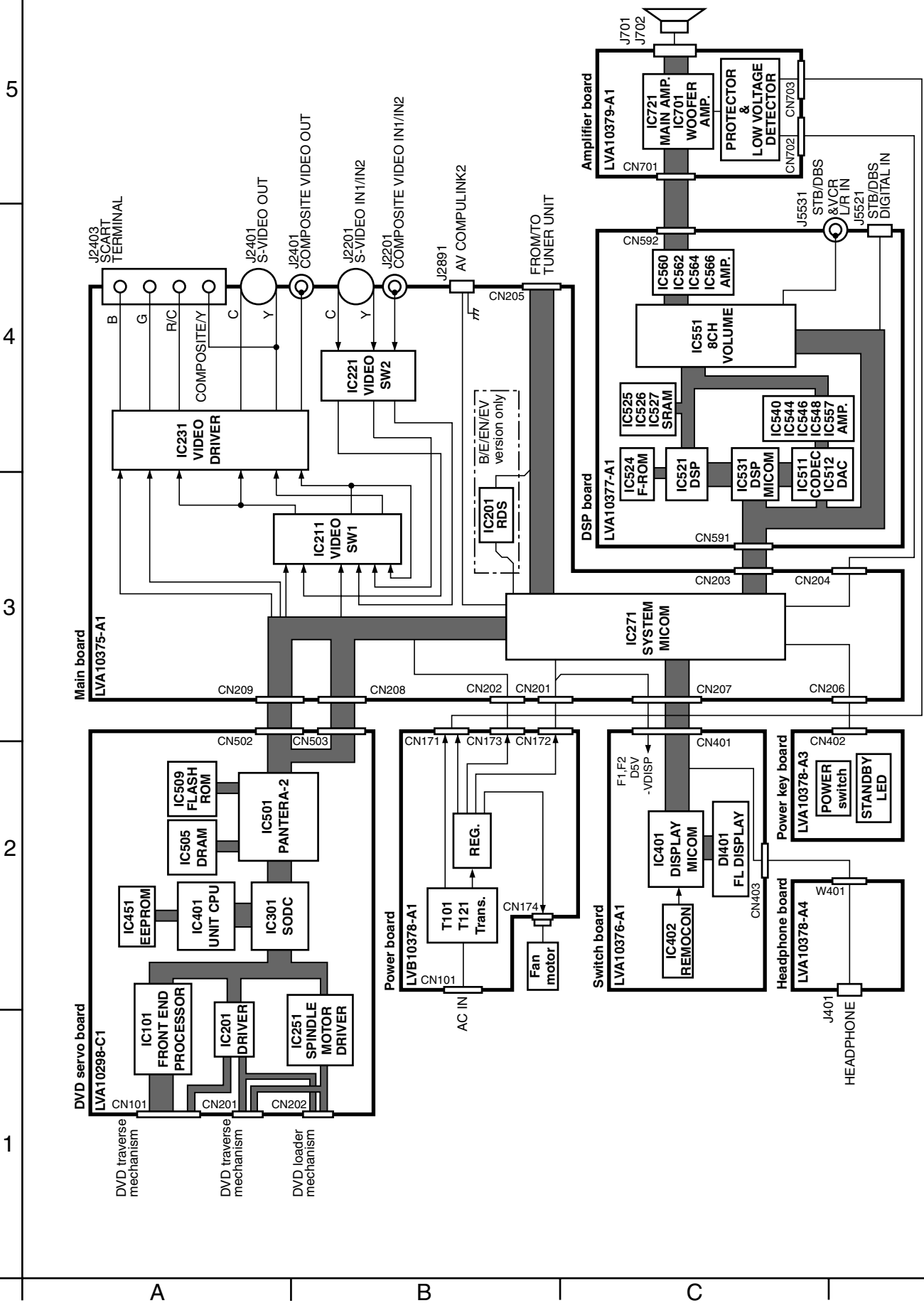
## TH-A75R

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (▬) and ICP (●) or identified by the "△" mark nearby are critical for safety.

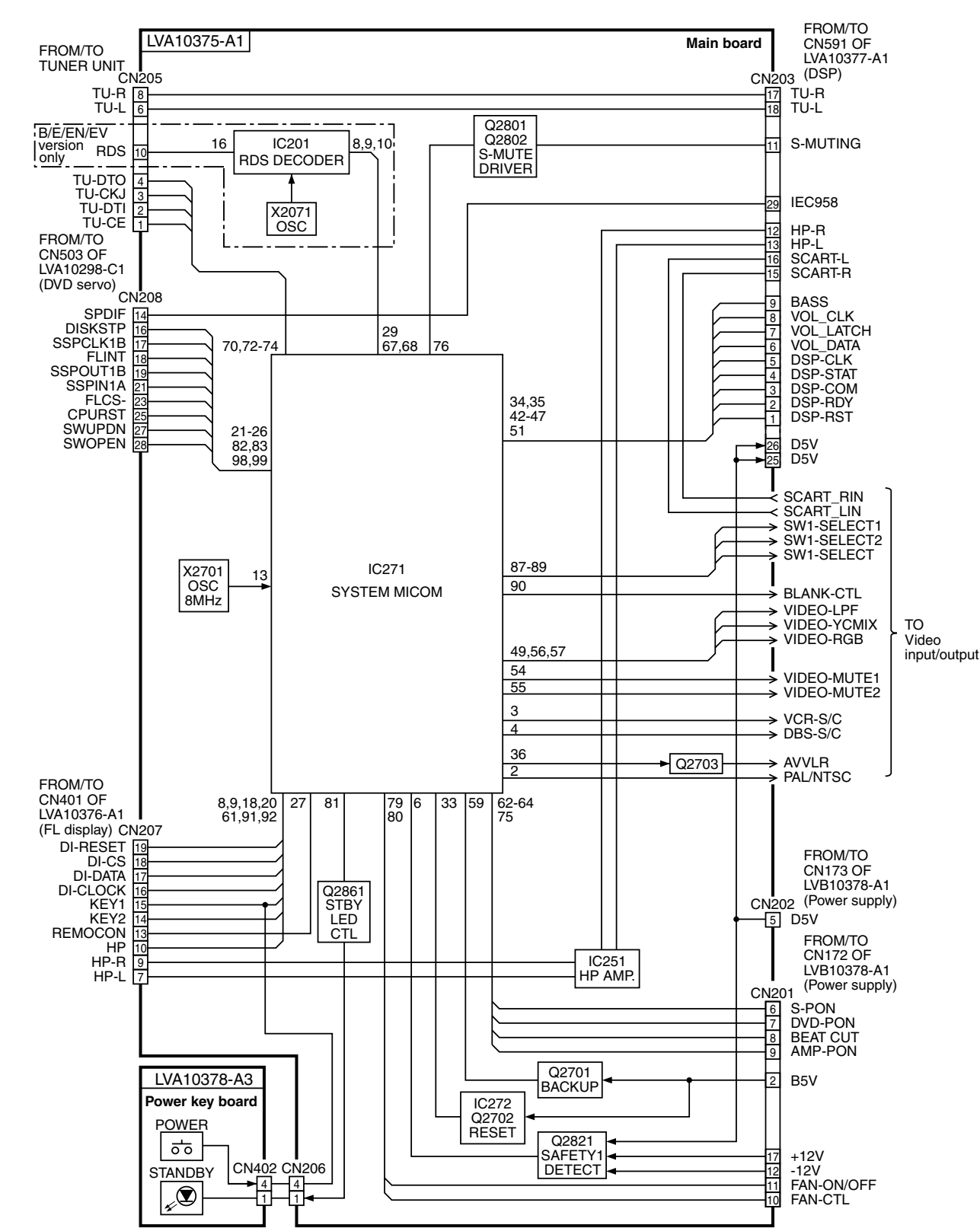
(This regulation does not correspond to J and C version.)

Block diagrams

■ Overall block diagram

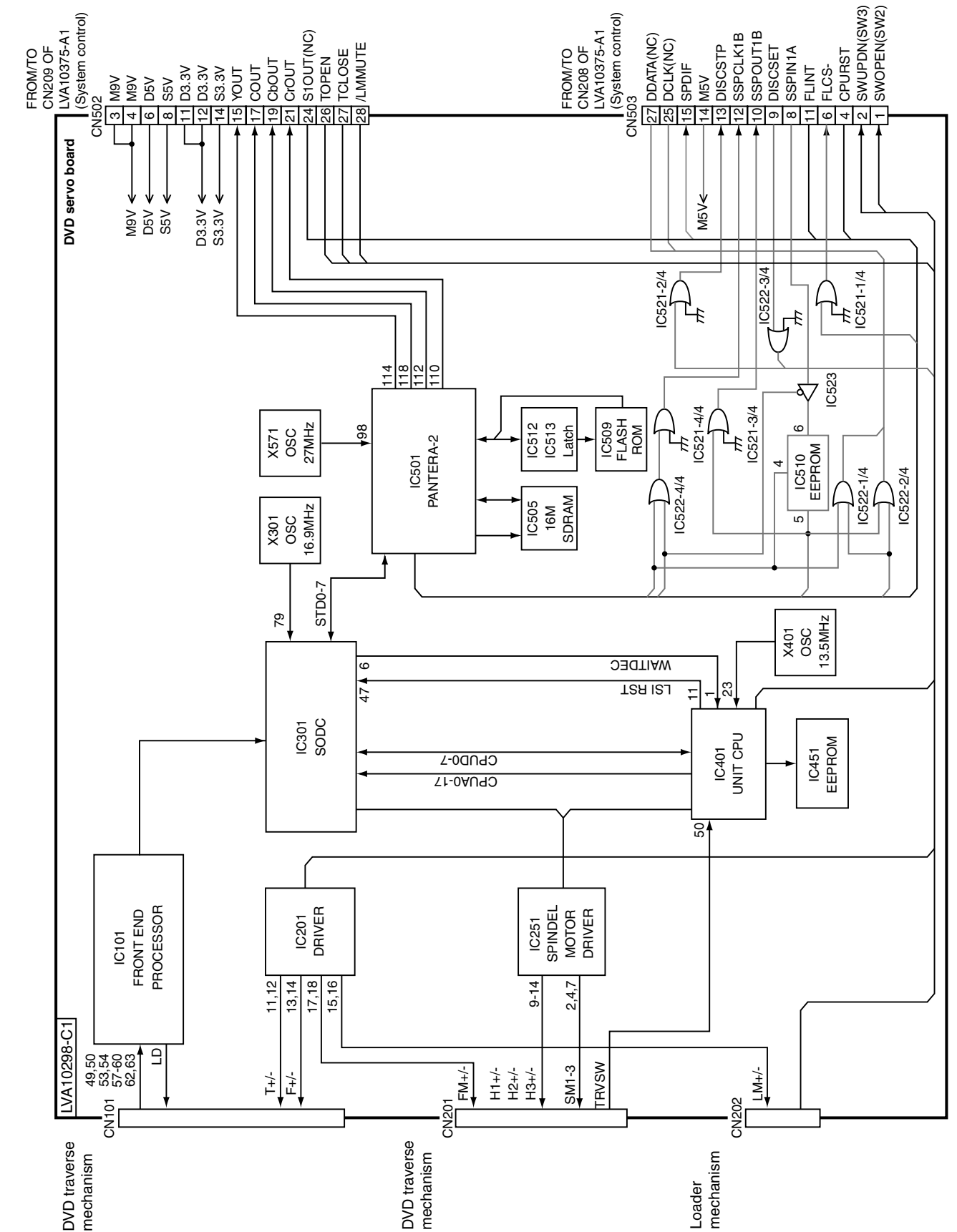


■ System control section

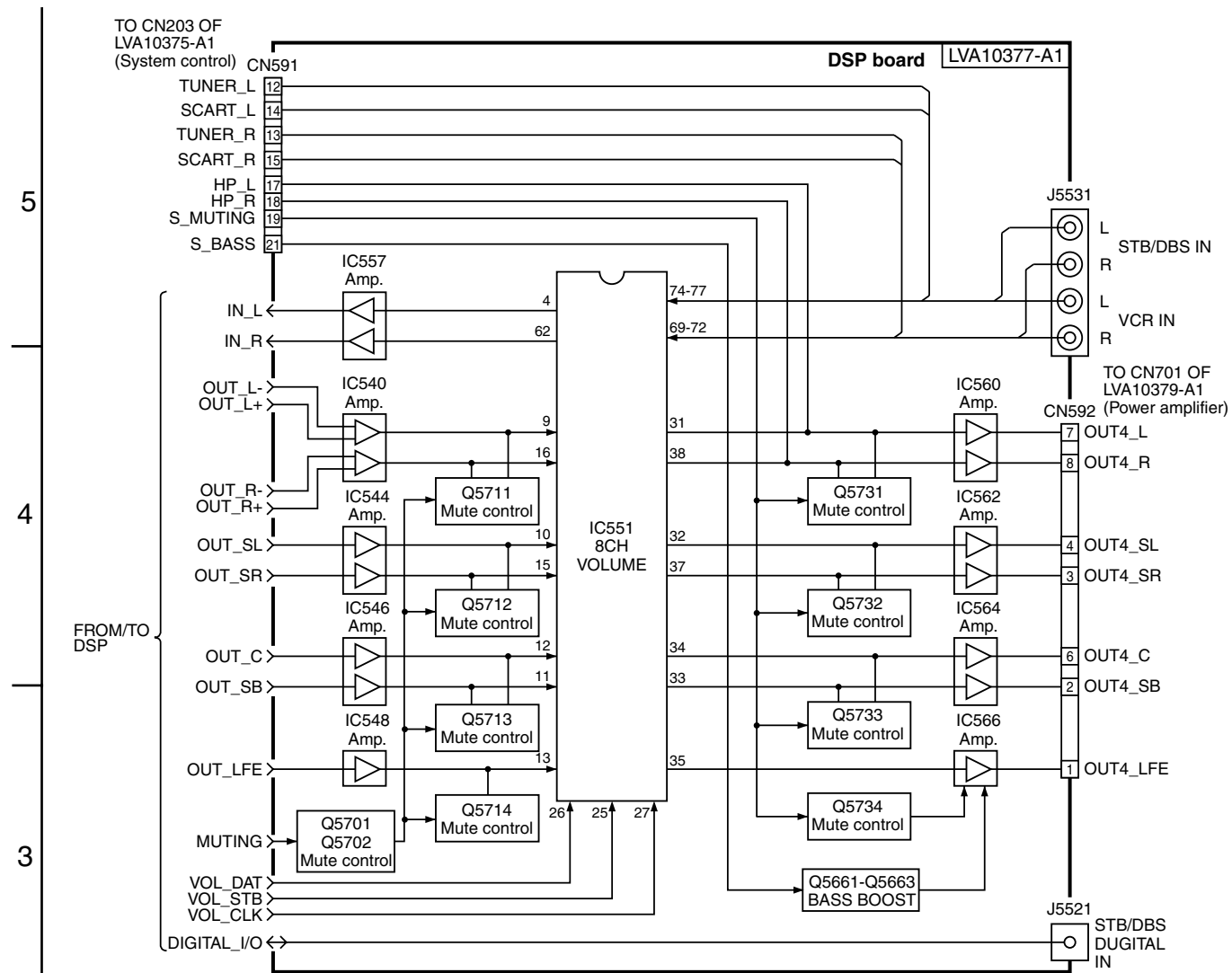




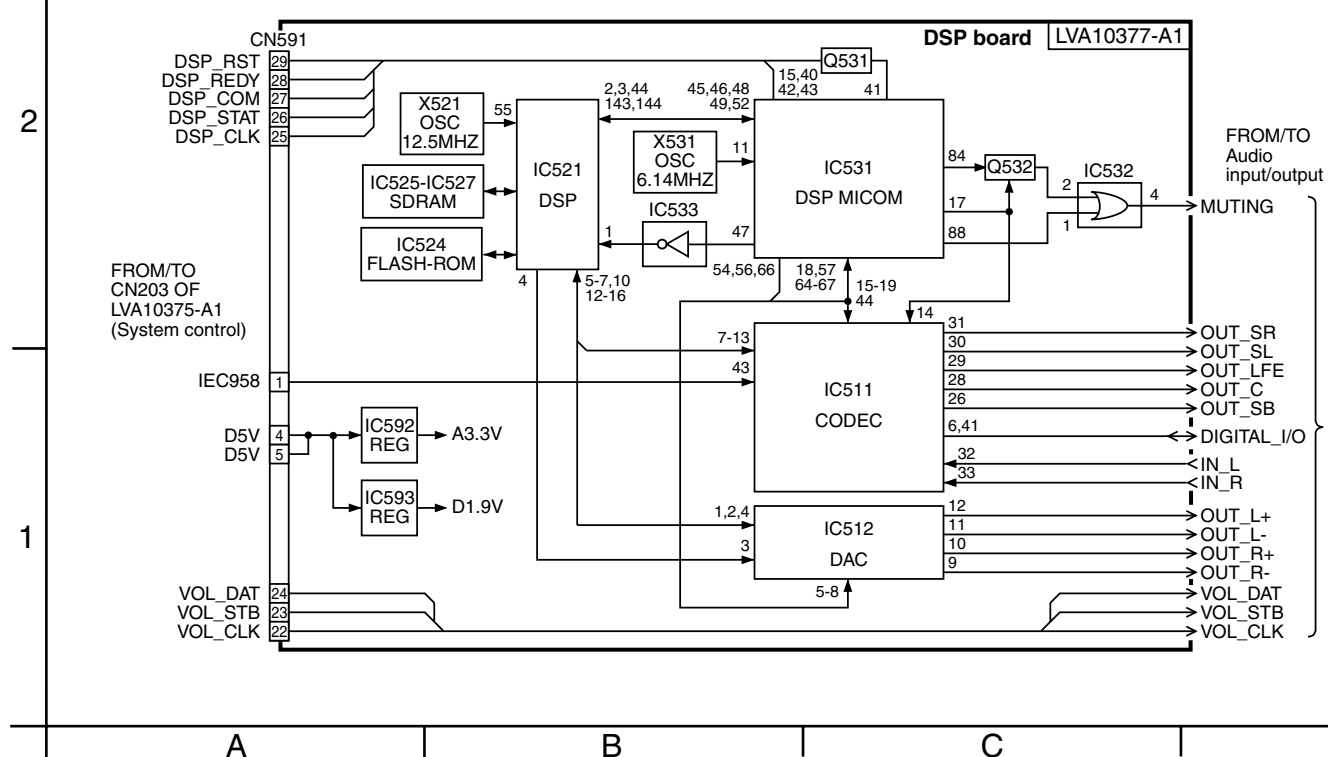
## ■ DVD servo section



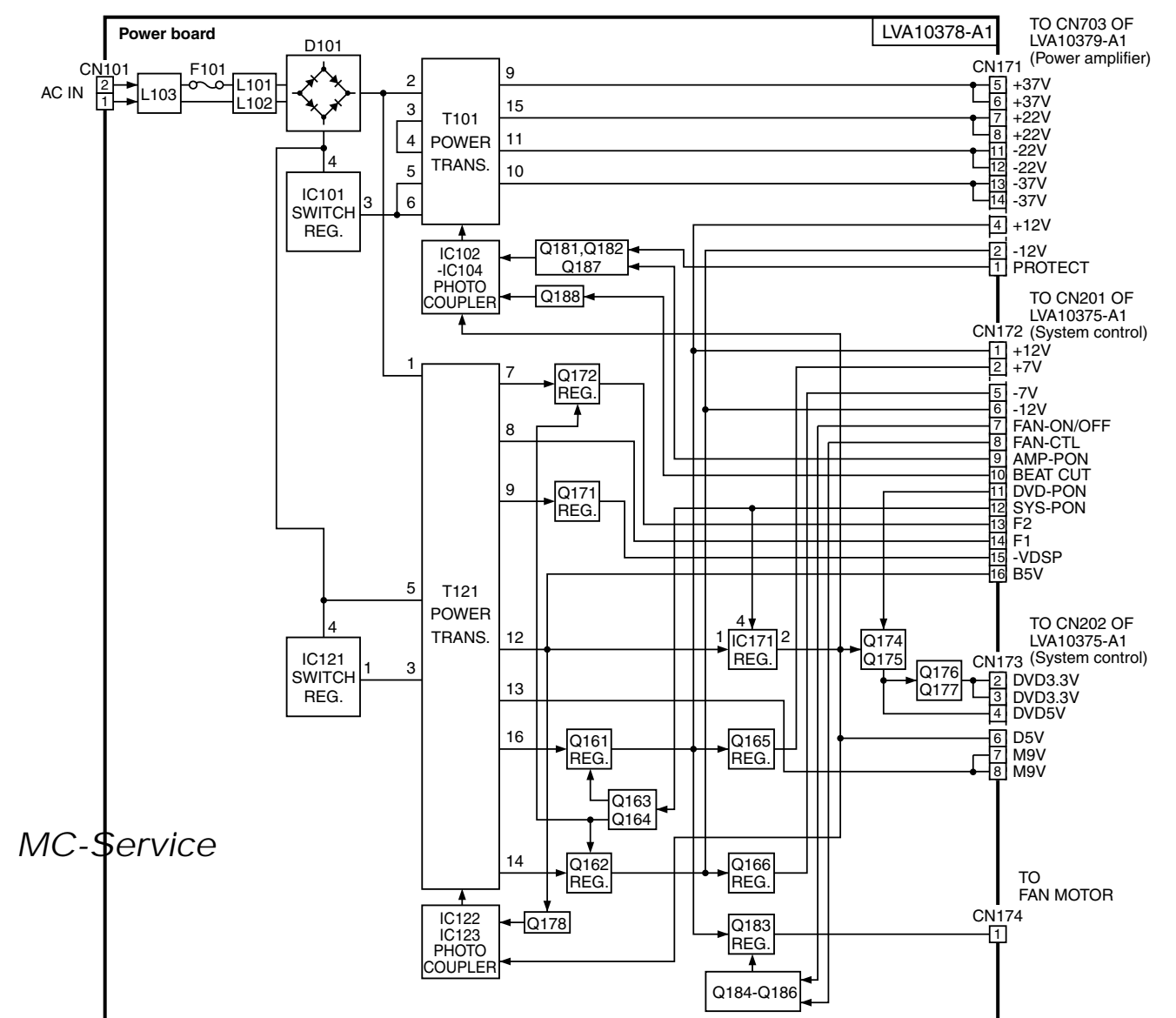
### ■ Audio input/output section



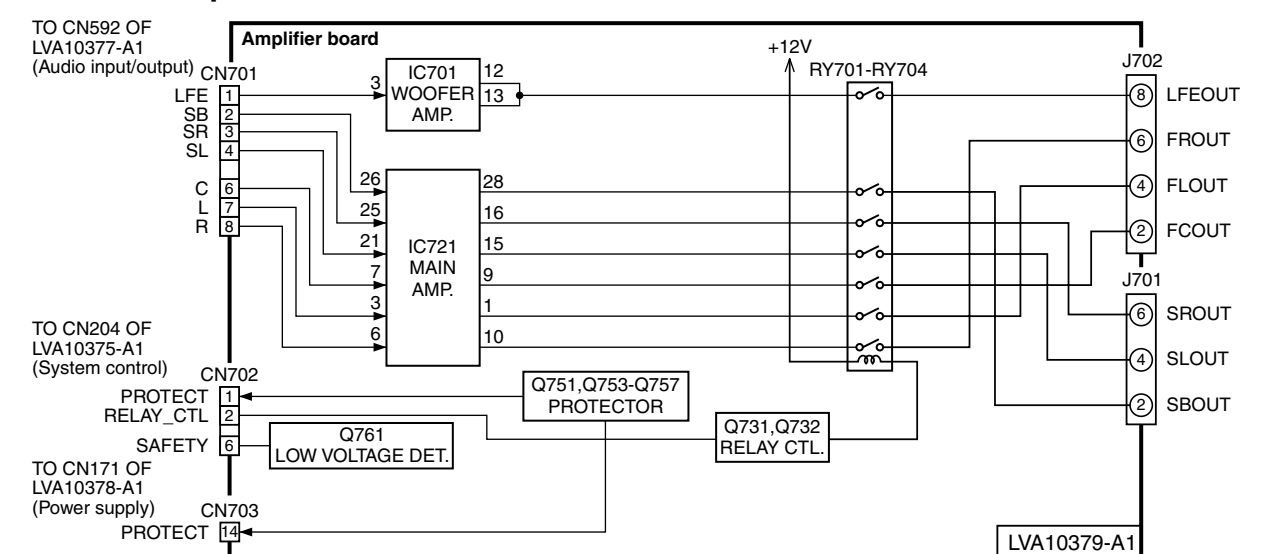
## ■ DSP section



### ■ Power supply section



### ■ Power amplifier section



Standard schematic diagrams

System control section

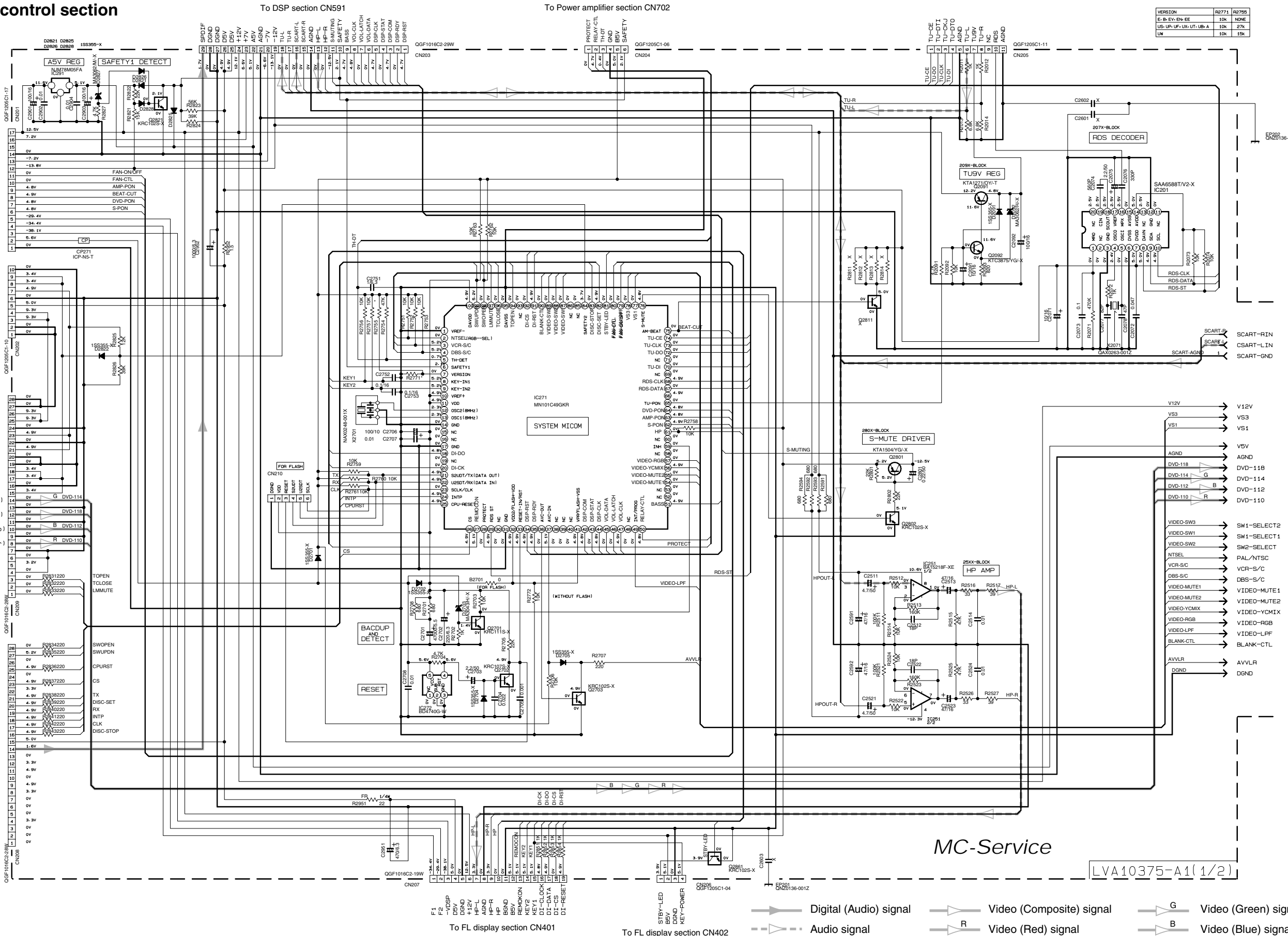
5  
4  
3  
2  
1

To Power supply section CN172  
+12V  
+7V  
NC  
AGND  
-7V  
-12V  
FAN-ON/OFF  
FAN-CTL  
AMP-PON  
BEAT CUT  
DVD-PON  
S-PON  
F1  
-VDSP  
BSV  
BGND

To Power supply section CN173  
DVD-GND  
DVD-3.3V  
DVD-3.3V  
DVD5V  
DGND  
D5V  
DVD-M5V  
DVD-M5V  
DVD-MGND  
DVD-MGND

To DVD servo section 3/4 CN502  
DVD-MGND  
DVD-MGND  
DVD-M5V  
DVD-M5V  
DVD-DGND  
DVD-D5V  
DVD-SGND  
DVD-DGND  
DVD-D3.3V  
DVD-D3.3V  
DVD-SGND  
DVD-S3.3V  
DVD-114 (Y)  
DVD-VGND  
DVD-118 (C)  
DVD-VGND  
DVD-112 (Cb)  
DVD-VGND  
DVD-110 (Cr)  
DVD-VGND  
DGND  
S1OUT  
DGND  
TOPEN  
TCLUSE  
/LMUTE

To DVD servo section 3/4 CN503  
SWOPEN  
SWUPON  
SMUTE  
CPURST  
SWMUTE  
FLCS-  
LRMUTE  
SSPIN14  
DISCSET  
SSPOUT18  
FLINT  
SSPCLK18  
DISCSTP  
MSV  
SPDIF  
AOUT3  
192K  
AOUT2  
DAC2CS  
AOUT1  
DAC1CS  
AOUT0  
DAC0CS  
LRCK  
DCLK  
BCLK  
DDATA  
PHOTO



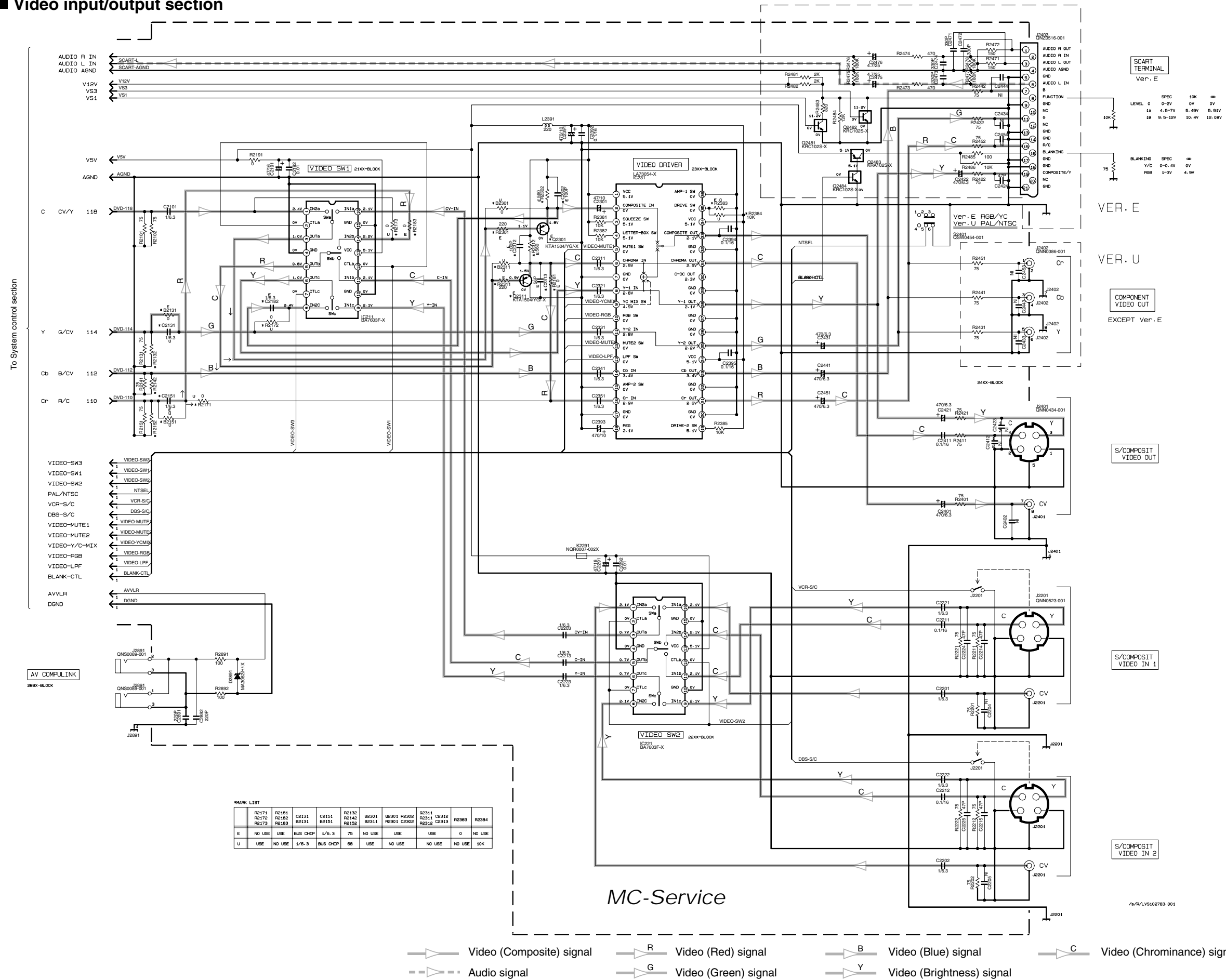
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E: B, EV, EN, EE	10k	NONE
US: UP, LP, UX, UT, UB, A	10k	27k
UN	10k	15k

MC-Service

LVA10375-A1(1/2)

- Digital (Audio) signal
- Video (Composite) signal
- Video (Green) signal
- Video (Red) signal
- Audio signal
- Video (Blue) signal

## ■ Video input/output section



DSP section

5

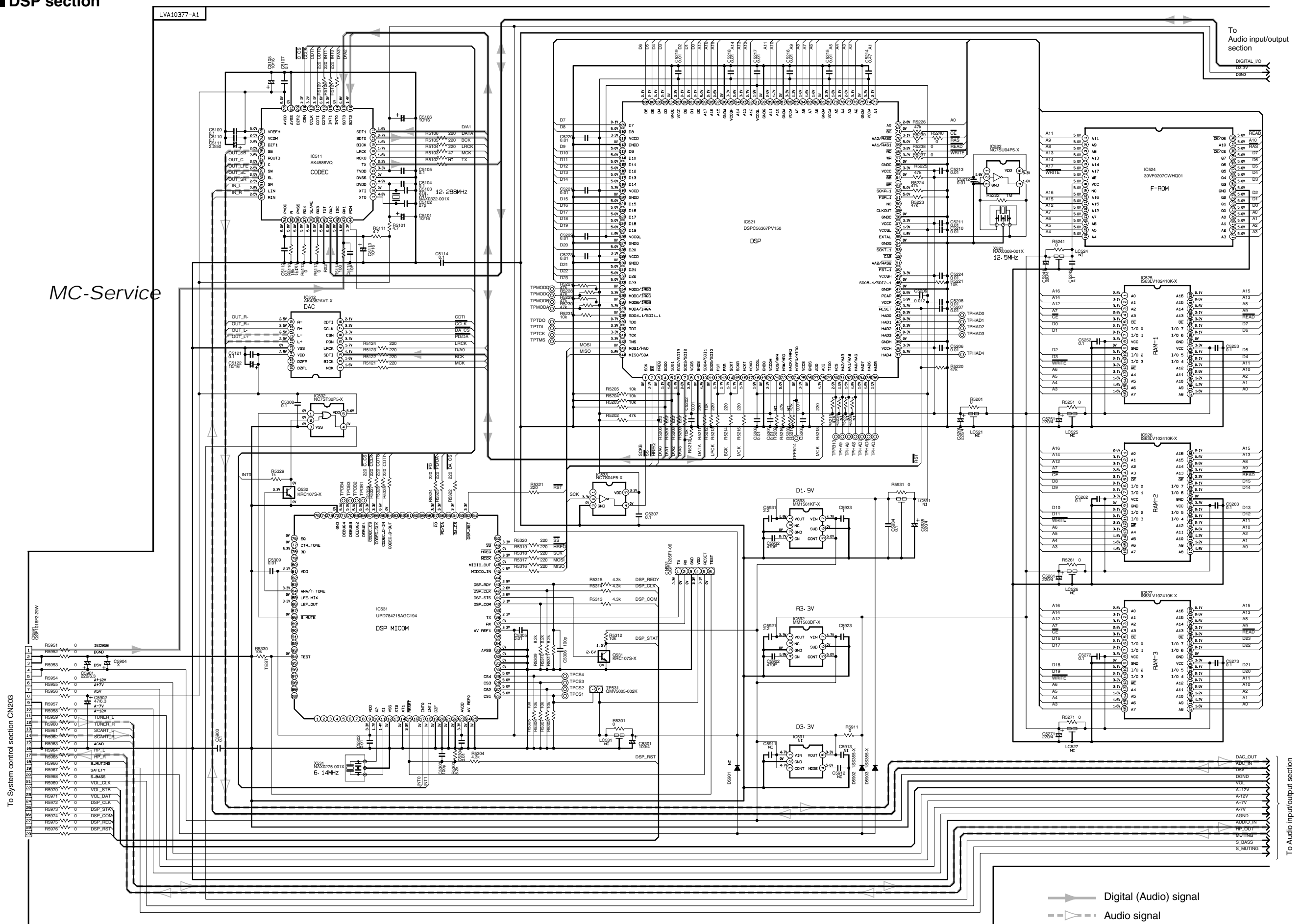
4

3

2

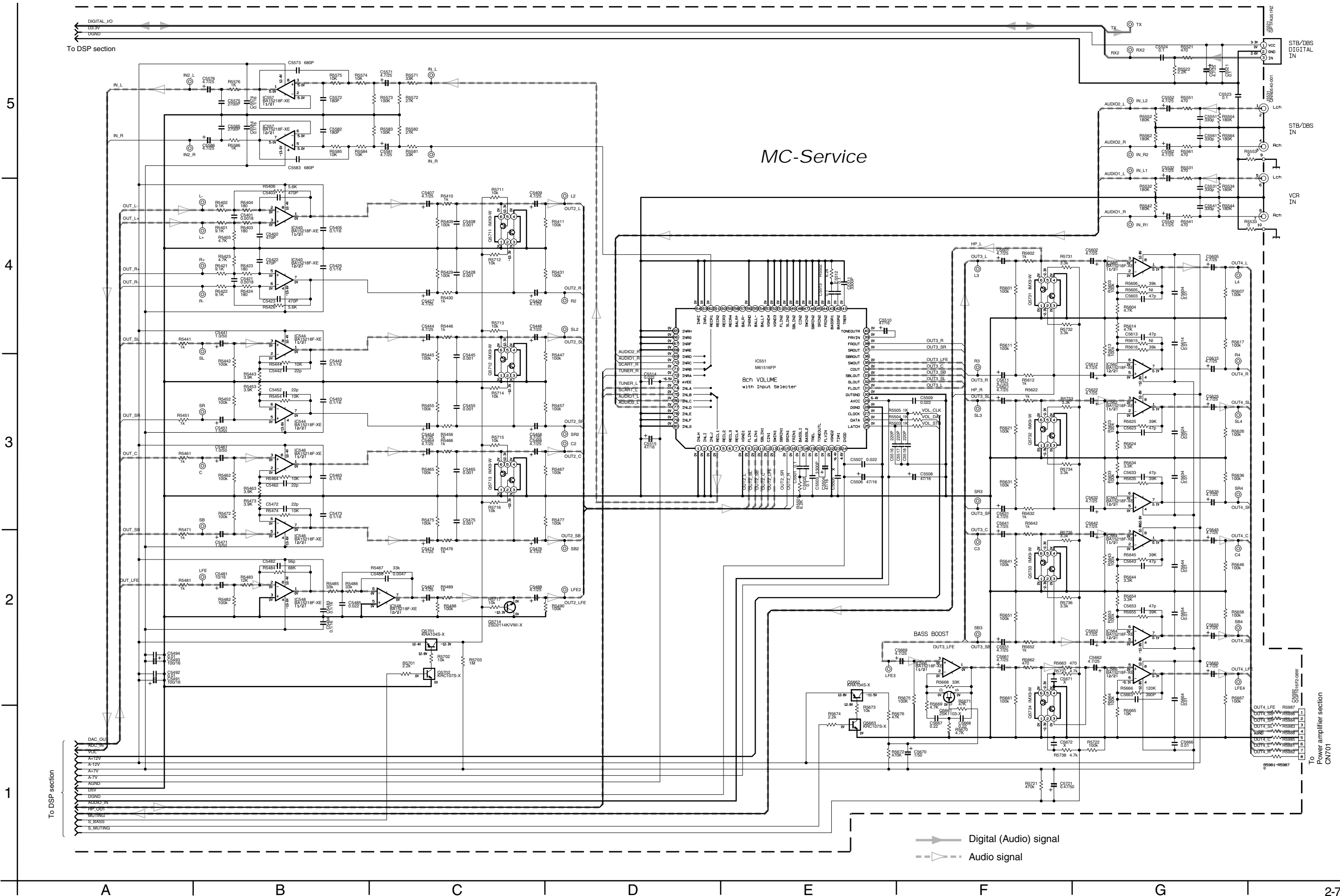
1

MC-Service

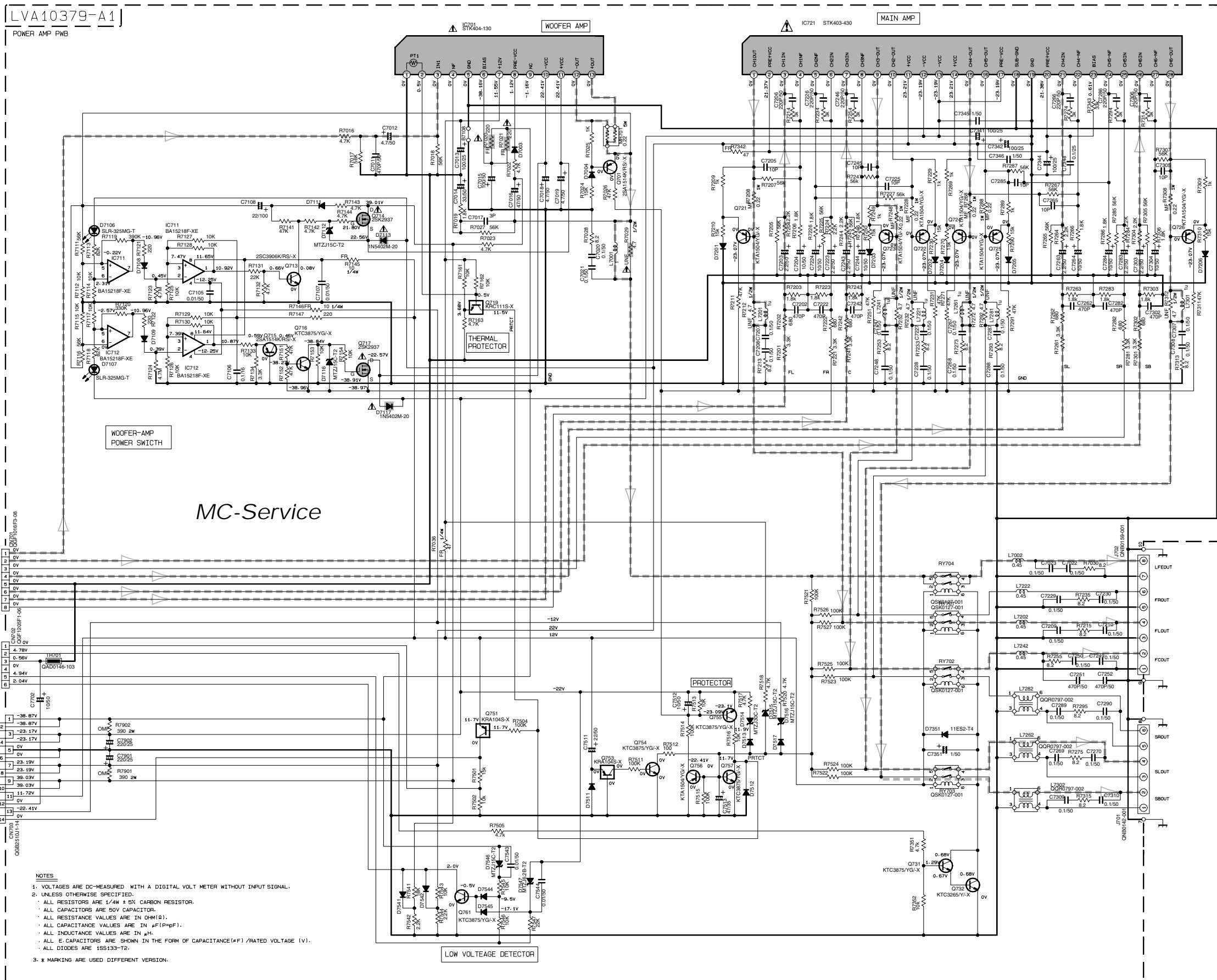


➔ Digital (Audio) signal  
- - - - - Audio signal

Audio input/output section



Power amplifier section

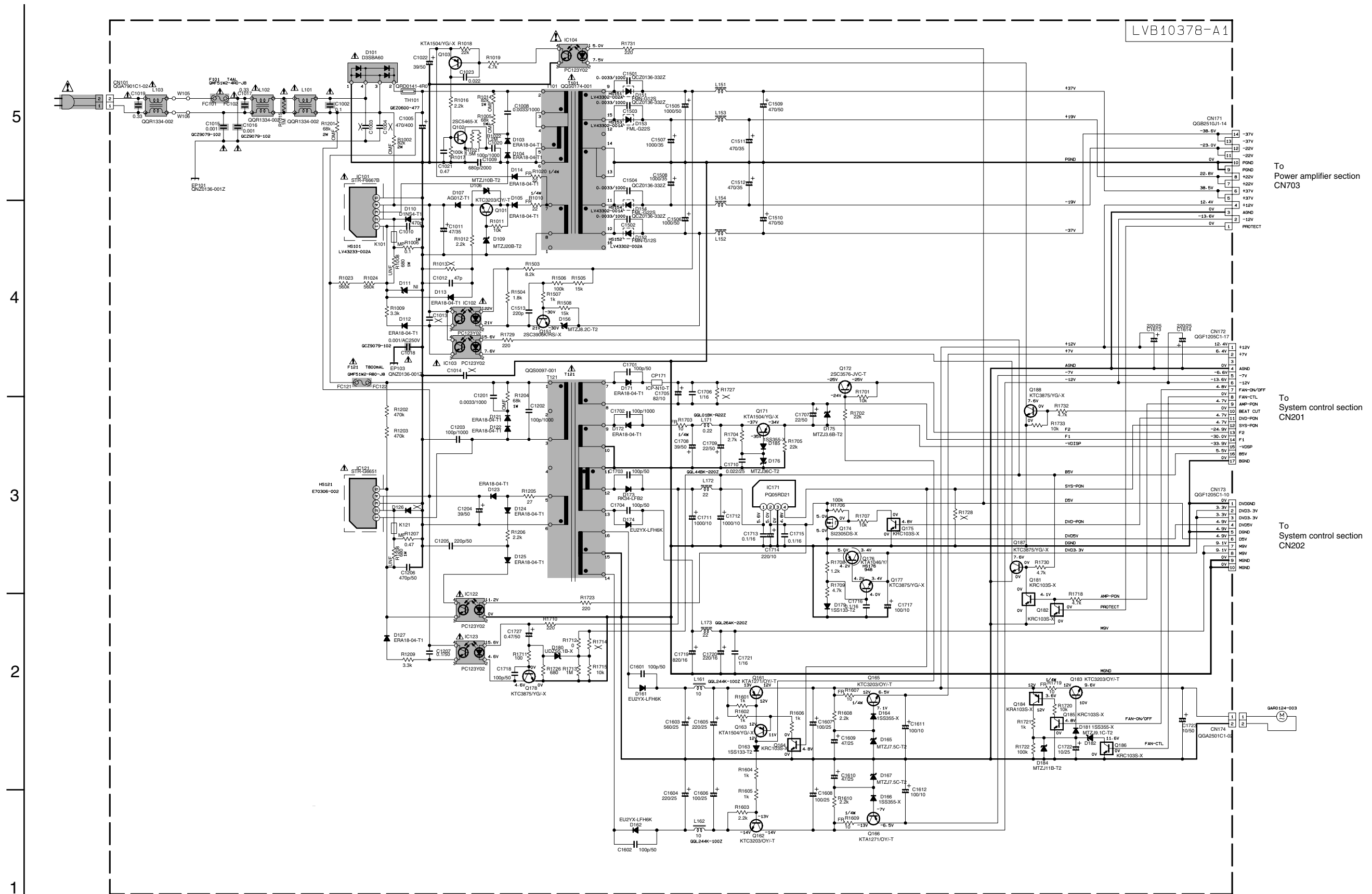


- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
  - UNLESS OTHERWISE SPECIFIED.
    - ALL RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
    - ALL CAPACITORS ARE 50V CAPACITOR.
    - ALL RESISTANCE VALUES ARE IN OHM(Ω).
    - ALL CAPACITANCE VALUES ARE IN μF(μF).
    - ALL INDUCTANCE VALUES ARE IN μH.
    - ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).
    - ALL DIODES ARE 1SS133-T2.
  - \* MARKING ARE USED DIFFERENT VERSION.

--->--- Audio signal

▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

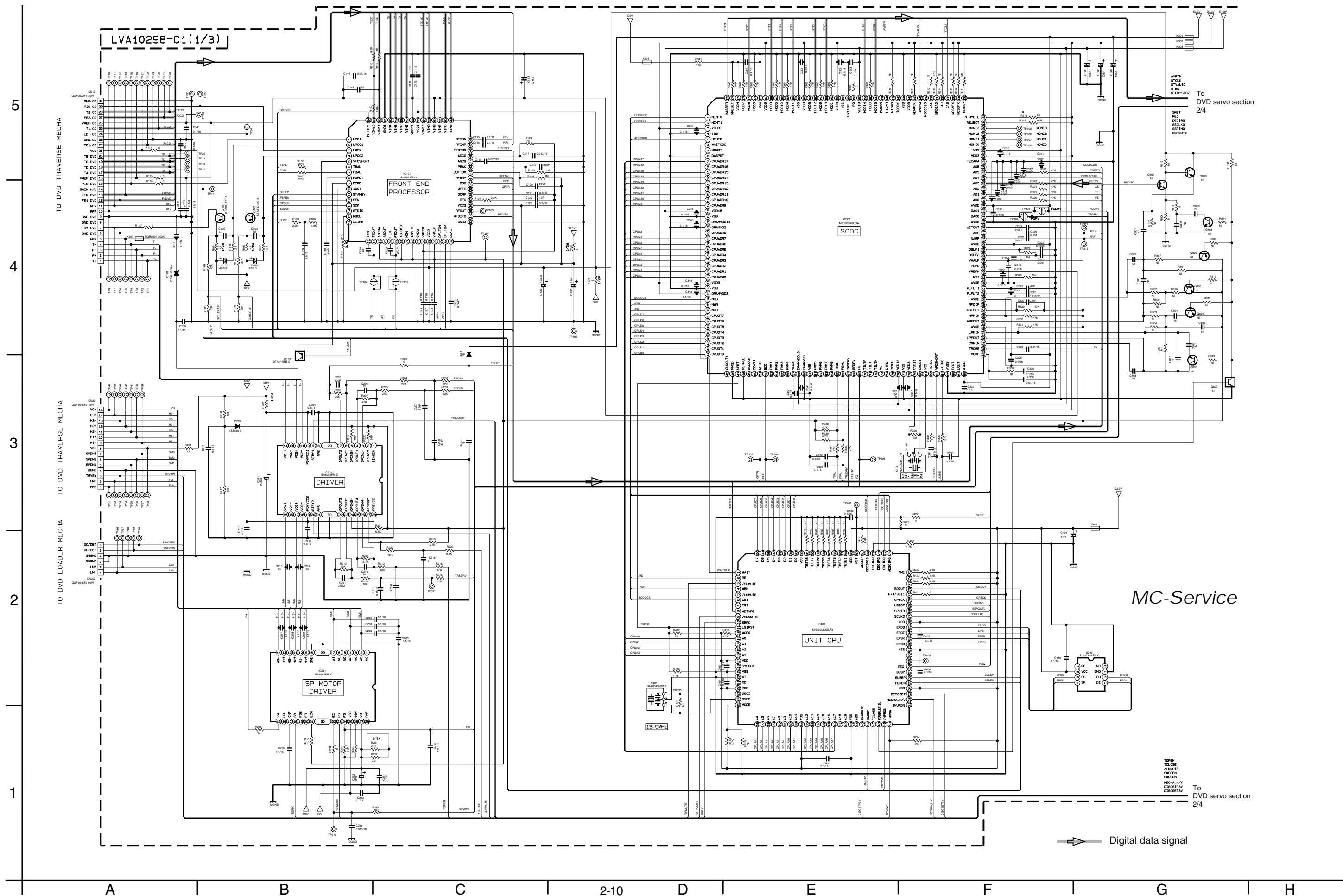
# Power supply section



Parts are safety assurance parts.  
When replacing those parts make  
sure to use the specified one.



DVD servo section 1/4



DVD servo section 2/4

LVA10298-C1(2/3)

To DVD servo section 1/4

To DVD servo section 3/4

To DVD servo section 3/4

To DVD servo section 3/4

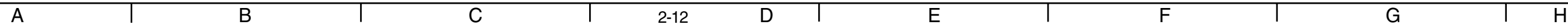
To DVD servo section 3/4

MC-Service

To DVD servo section 1/4

- Digital data signal
- Digital (Audio) signal
- Video (Composite) signal
- R Video (Red) signal
- G Video (Green) signal
- B Video (Blue) signal

## 1



DVD servo section 4/4 (Voltage value)

5

4

3

2

1

IC101

NO	DC(V)	NO	DC(V)
1	0V	51	2.1V
2	4.4V	52	2.1V
3	3.7V	53	2.1V
4	4.4V	54	2.1V
5	0V	55	4.9V
6	1.7V	56	2.1V
7	1.7V	57	2.1V
8	1.9V	58	2.1V
9	3.3V	59	2.1V
10	0V	60	2.1V
11	3.3V	61	0V
12	3.3V	62	2.1V
13	3.3V	63	2.1V
14	3.3V	64	0V
15	0V		
16	1.7V		
17	1.5V		
18	1.7V		
19	1.7V		
20	0V		
21	1.7V		
22	0V		
23	1.7V		
24	0.9V		
25	1.7V		
26	0V		
27	0V		
28	4.9V		
29	1.7V		
30	0V		
31	0V		
32	0V		
33	0V		
34	0V		
35	0.9V		
36	3.3V		
37	1.3V		
38	0.9V		
39	3.3V		
40	3.3V		
41	1.7V		
42	1.7V		
43	1.7V		
44	1.0V		
45	1.7V		
46	2.1V		
47	2.1V		
48	2.1V		
49	2.1V		
50	2.1V		

IC201

NO	DC(V)
1	1.7V
2	1.7V
3	1.7V
4	1.7V
5	1.7V
6	1.7V
7	1.7V
8	0V
9	3.2V
10	5.0V
11	2.5V
12	2.5V
13	2.5V
14	2.5V
15	4.3V
16	4.3V
17	4.3V
18	4.3V
19	9.2V
20	0V
21	0V
22	1.7V
23	1.7V
24	1.7V
25	0V
26	0V
27	1.7V
28	9.2V
29	1.7V
30	9.2V

IC251

NO	DC(V)
1	0.8V
2	0.8V
3	0.8V
4	0.8V
5	0V
6	0V
7	0.8V
8	0V
9	5.0V
10	5.0V
11	5.0V
12	5.0V
13	5.0V
14	5.0V
15	0V
16	0V
17	0V
18	0V
19	5.0V
20	5.0V
21	1.67V
22	1.67V
23	0V
24	3.3V
25	5.0V
26	0V
27	9.2V
28	9.2V
29	0V
30	0V

IC301

NO	DC(V)	NO	DC(V)	NO	DC(V)	NO	DC(V)
1	0V	51	3.3V	101	0.7V	151	0V
2	2.9V	52	3.3V	102	0V	152	1.7V
3	3.3V	53	---	103	1.4V	153	0V
4	0V	54	---	104	2.1V	154	1.7V
5	3.3V	55	---	105	---	155	0V
6	3.3V	56	---	106	1.7V	156	3.3V
7	---	57	3.3V	107	0.7V	157	0V
8	0V	58	1.7V	108	0.7V	158	0V
9	0V	59	0V	109	3.3V	159	0V
10	0V	60	0V	110	1.7V	160	0V
11	3.3V	61	---	111	1.7V	161	0V
12	3.3V	62	---	112	0V	162	3.3V
13	3.3V	63	---	113	0V	163	0V
14	0V	64	---	114	1.7V	164	0V
15	1.4V	65	1.7V	115	1.7V	165	0V
16	0.3V	66	1.7V	116	3.3V	166	0V
17	1.4V	67	1.7V	117	1.7V	167	0V
18	1.7V	68	1.7V	118	1.7V	168	0V
19	0V	69	3.3V	119	1.7V	169	3.3V
20	1.7V	70	---	120	1.7V	170	0V
21	0V	71	---	121	2.1V	171	0V
22	2.2V	72	---	122	1.7V	172	3.3V
23	2.2V	73	---	123	2.1V	173	0V
24	1.7V	74	---	124	---	174	4.9V
25	1.5V	75	---	125	3.3V	175	4.9V
26	1.5V	76	1.7V	126	0V	176	3.3V
27	1.5V	77	0V	127	0V		
28	1.5V	78	3.3V	128	0V		
29	1.5V	79	1.7V	129	0V		
30	0.5V	80	---	130	0V		
31	3.3V	81	0V	131	3.3V		
32	0V	82	0.8V	132	0V		
33	3.3V	83	2.1V	133	0V		
34	3.3V	84	1.7V	134	0V		
35	3.3V	85	0V	135	0V		
36	3.3V	86	---	136	1.7V		
37	0V	87	---	137	3.3V		
38	0V	88	3.3V	138	0V		
39	0V	89	0V	139	3.3V		
40	0V	90	1.7V	140	0V		
41	0V	91	---	141	0V		
42	0V	92	---	142	0V		
43	1.0V	93	1.7V	143	3.3V		
44	0V	94	0V	144	0V		
45	---	95	---	145	---		
46	0V	96	1.7V	146	1.7V		
47	3.3V	97	1.7V	147	3.3V		
48	0V	98	---	148	---		
49	---	99	3.3V	149	0V		
50	---	100	0.7V	150	0V		

IC401

NO	DC(V)	NO	DC(V)
1	3.3V	51	---
2	3.3V	52	0V
3	0V	53	3.3V
4	3.3V	54	3.3V
5	---	55	3.3V
6	3.3V	56	3.3V
7	---	57	---
8	0V	58	3.3V
9	3.3V	59	0V
10	0V	60	---
11	3.3V	61	0V
12	3.3V	62	0V
13	1.5V	63	0V
14	1.5V	64	0V
15	1.5V	65	0V
16	1.5V	66	3.3V
17	3.3V	67	3.3V
18	---	68	0V
19	0V	69	3.3V
20	0V	70	3.3V
21	---	71	0V
22	3.3V	72	3.3V
23	1.7V	73	3.3V
24	1.7V	74	3.3V
25	5.0V	75	3.3V
26	3.3V	76	3.3V
27	0V	77	0V
28	3.3V	78	0V
29	3.3V	79	0V
30	3.3V	80	0V
31	3.3V	81	3.3V
32	0V	82	0.8V
33	3.3V	83	3.3V
34	3.3V	84	3.3V
35	0V	85	3.3V
36	3.3V	86	3.3V
37	3.3V	87	3.3V
38	3.3V	88	3.3V
39	0V	89	3.3V
40	0V	90	3.3V
41	---	91	3.3V
42	---	92	0V
43	0V	93	0V
44	---	94	0V
45	3.3V	95	0V
46	0V	96	0V
47	0V	97	0V
48	3.3V	98	0V
49	3.3V	99	0V
50	3.3V	100	0V

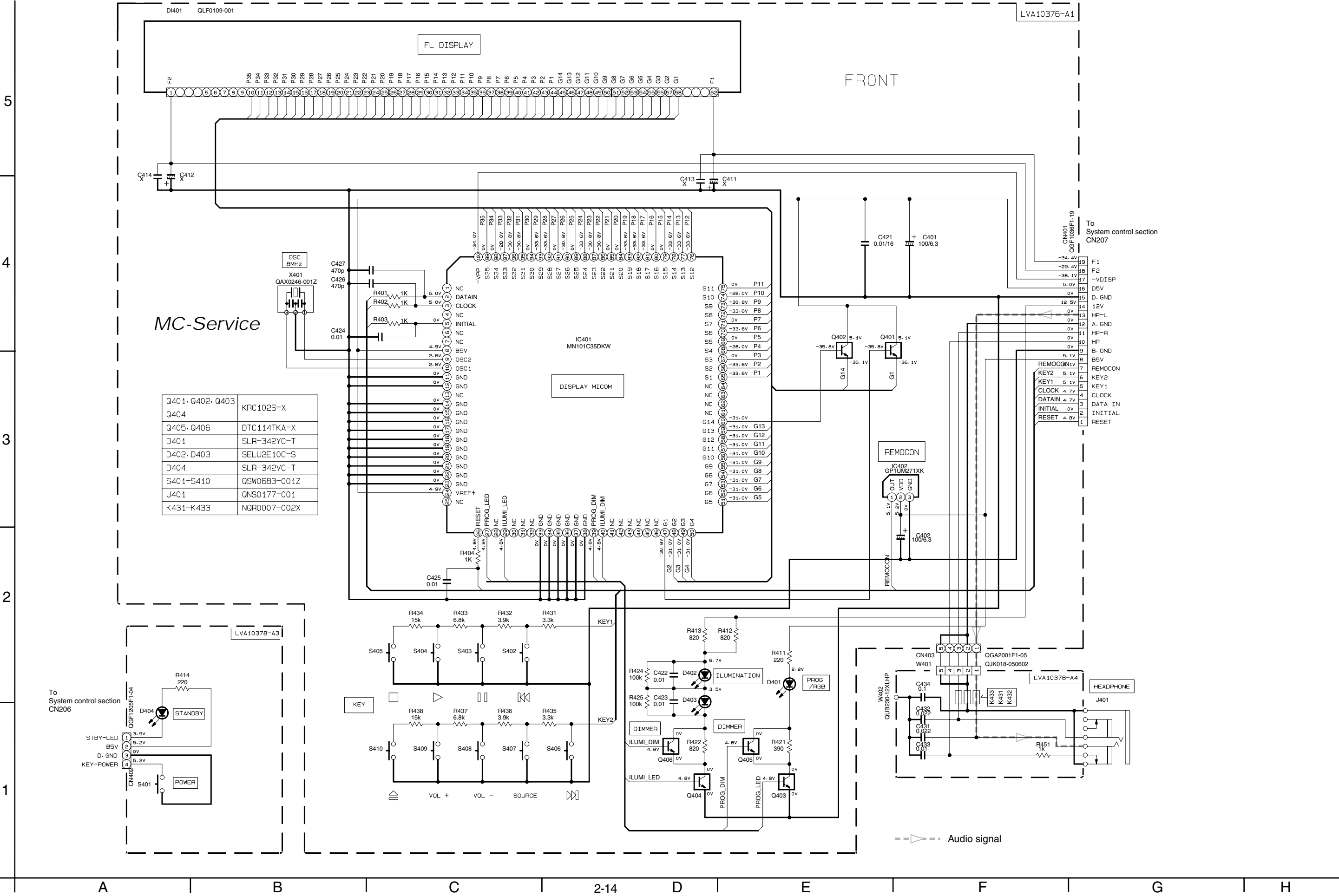
IC451

NO	DC(V)
1	0V
2	3.2V
3	0V
4	0V
5	0V
6	0V
7	0V
8	0V

IC501

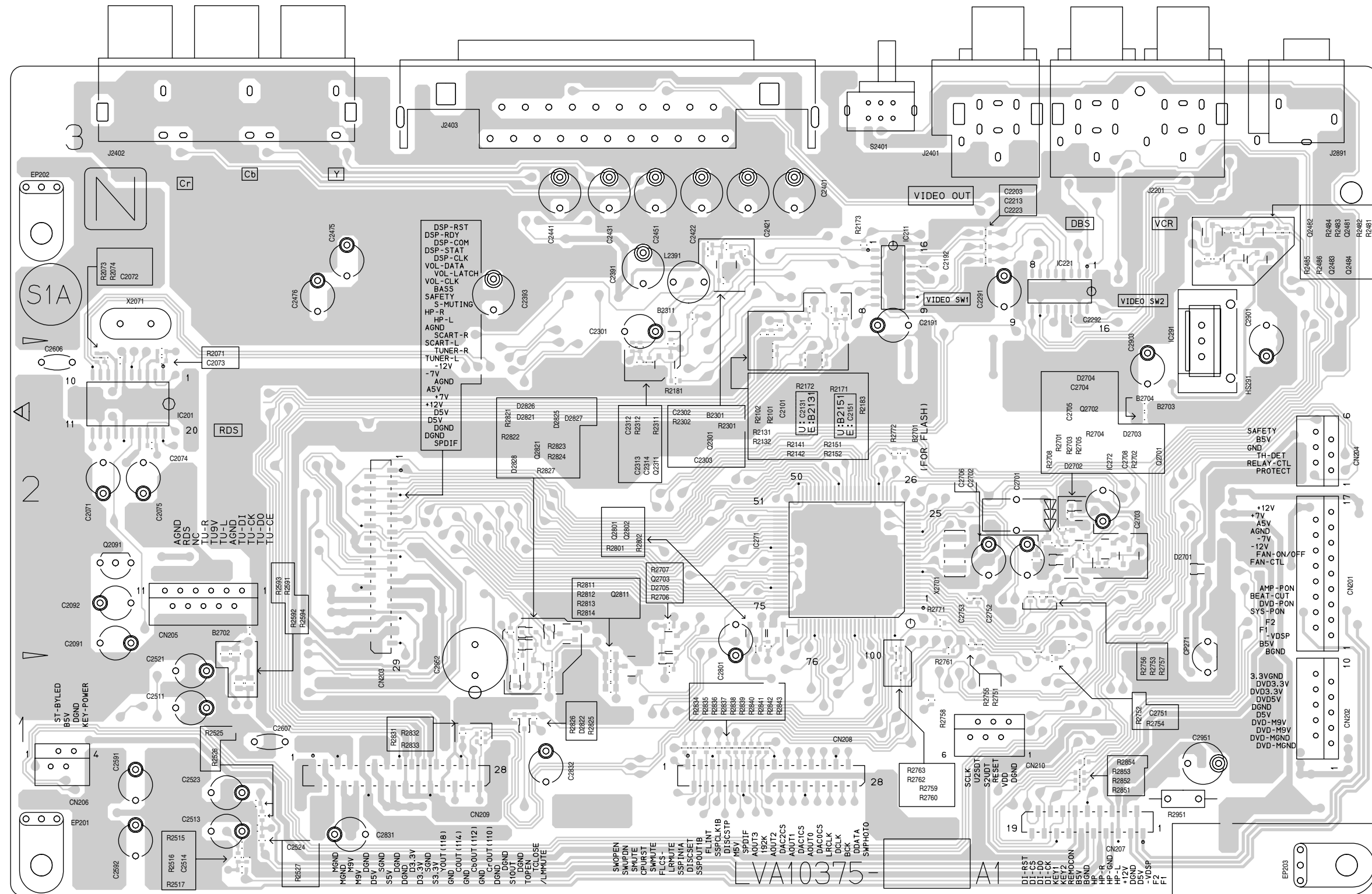
	NO	DC(V)	NO	DC(V)	NO	DC(V)	NO	DC(V)	NO	DC(V)	NO	DC(V)
1	3.2V	53	3.2V	105	0V	157	0V	209	0V			
2	0.5V	54	0.4V	106	0V	158	0V	210	3.2V			
3	0.4V	55	0.4V	107	3.2V	159	1.7V	211	0V			
4	1.8V	56	0.4V	108	1.7V	160	1.7V	212	1.7V			
5	0.4V	57	0V	109	0V	161	3.2V	213	3.2V			
6	0V	58	0.4V	110	0V	162	0V	214	3.2V			
7	0.4V	59	0.4V	111	1.0V	163	0V	215	0V			
8	0.4V	60	0.4V	112	1.0V	164	0V	216	0V			
9	0V	61	0.5V	113	3.1V	165	0V	217	3.2V			
10	3.2V	62	3.2V	114	0.4V	166	0V	218	0V			
11	0V	63	0.5V	115	0.4V	167	0V	219	3.2V			
12	0V	64	3.2V	116	—	168	0V	220	3.2V			
13	0V	65	1.0V	117	3.1V	169	3.2V	221	0V			
14	0V	66	—	118	0.8V	170	3.2V	222	3.2V			
15	2.0V	67	0V	119	1.3V	171	0V	223	3.2V			
16	1.3V	68	1.7V	120	1.8V	172	0V	224	3.2V			
17	0V	69	0V	121	0V	173	0V	225	0V			
18	0.4V	70	3.2V	122	0V	174	0V	226	0V			
19	3.2V	71	0V	123	0V	175	0V	227	0.8V			
20	1.4V	72	0V	124	0V	176	0V	228	0V			
21	1.7V	73	0V	125	3.2V	177	0V	229	0.8V			
22	1.7V	74	0V	126	0V	178	0V	230	0V			
23	0V	75	3.2V	127	0V	179	0V	231	0.8V			
24	3.2V	76	—	128	0V	180	0V	232	0.6V			
25	0.5V	77	1.7V	129	0V	181	3.2V	233	3.2V			
26	2.5V	78	1.7V	130	0V	182	3.2V	234	0.6V			
27	3.2V	79	1.7V	131	0V	183	0V	235	0.8V			
28	1.2V	80	0V	132	0V	184	0V	236	1.0V			
29	0V	81	0V	133	0V	185	3.2V	237	0V			
30	0V	82	0V	134	0V	186	0V	238	0.4V			
31	0V	83	3.2V	135	1.8V	187	0V	239	0.8V			
32	2.0V	84	0.4V	136	0V	188	0V	240	0.8V			
33	1.3V	85	0V	137	0V	189	3.2V					
34	1.7V	86	3.2V	138	0V	190	0V					
35	2.2V	87	0V	139	0V	191	0V					
36	3.1V	88	1.7V	140	3.2V	192	1.7V					
37	3.2V	89	0V	141	0V	193	3.2V					
38	0V	90	0V	142	0V	194	3.2V					
39	3.2V	91	1.2V	143	0V	195	0V					
40	0V	92	0V	144	0V	196	3.2V					
41	0V	93	0V	145	3.2V	197	3.2V					
42	0V	94	0.6V	146	0V	198	3.2V					
43	0.7V	95	0V	147	0V	199	3.2V					
44	3.2V	96	0V	148	0V	200	3.2V					
45	0.7V	97	0V	149	0V	201	0V					
46	0.5V	98	1.7V	150	0V	202	3.2V					
47	0V	99	—	151	0V	203	2.2V					
48	0.5V	100	—	152	0V	204	0V					
49	0V	101	1.7V	153	0V	205	4.9V					
50	0.4V	102	3.2V	154	3.2V	206	3.2V					
51	0.4V	103	0V	155	0V	207	0V					
52	0.4V	104	0V	156	3.2V	208	3.2V					

FL display section



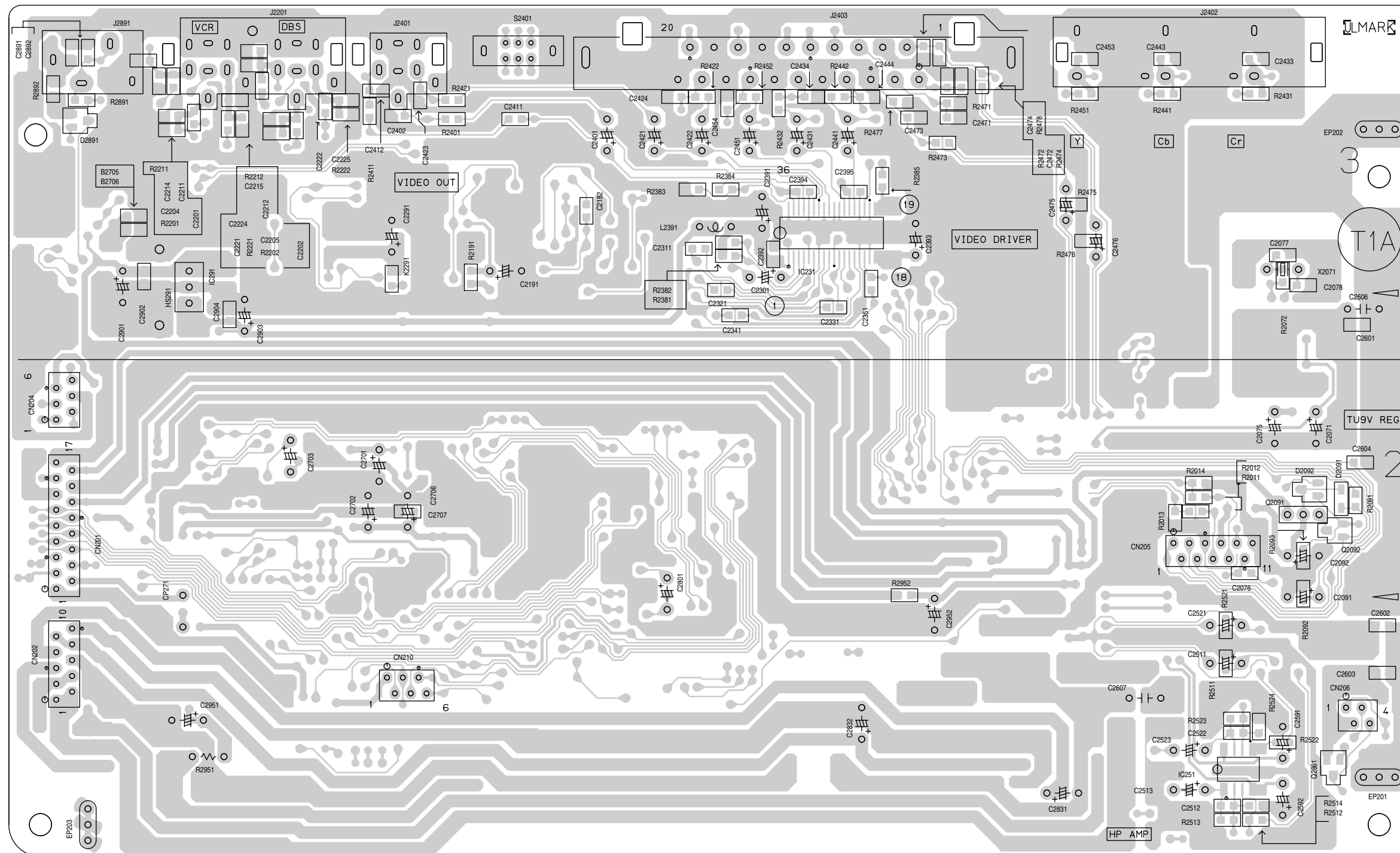
## ■ Main board

LVA10375



*MC-Service*

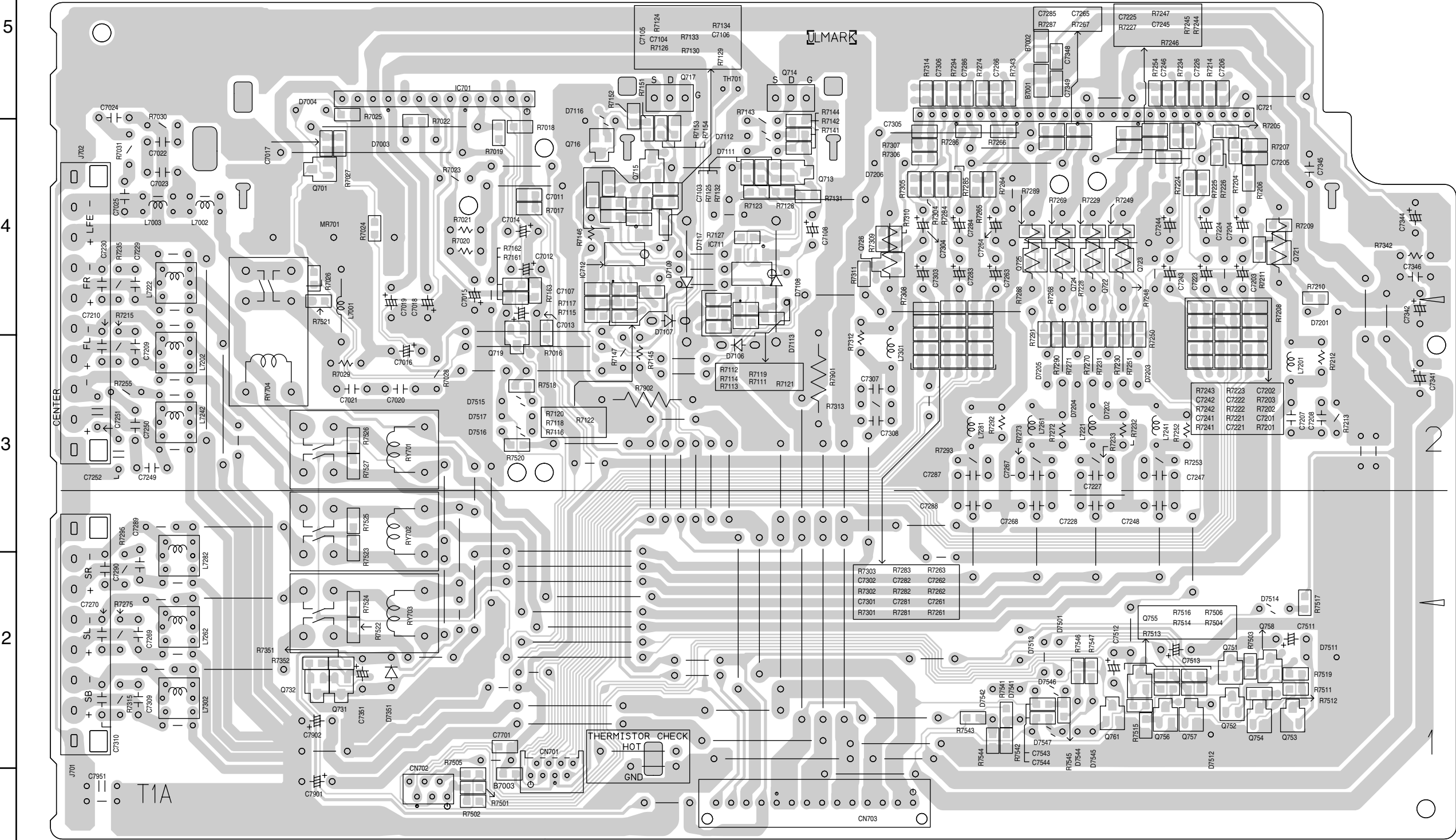
### Reverse side



MC-Service

■ Amplifier board

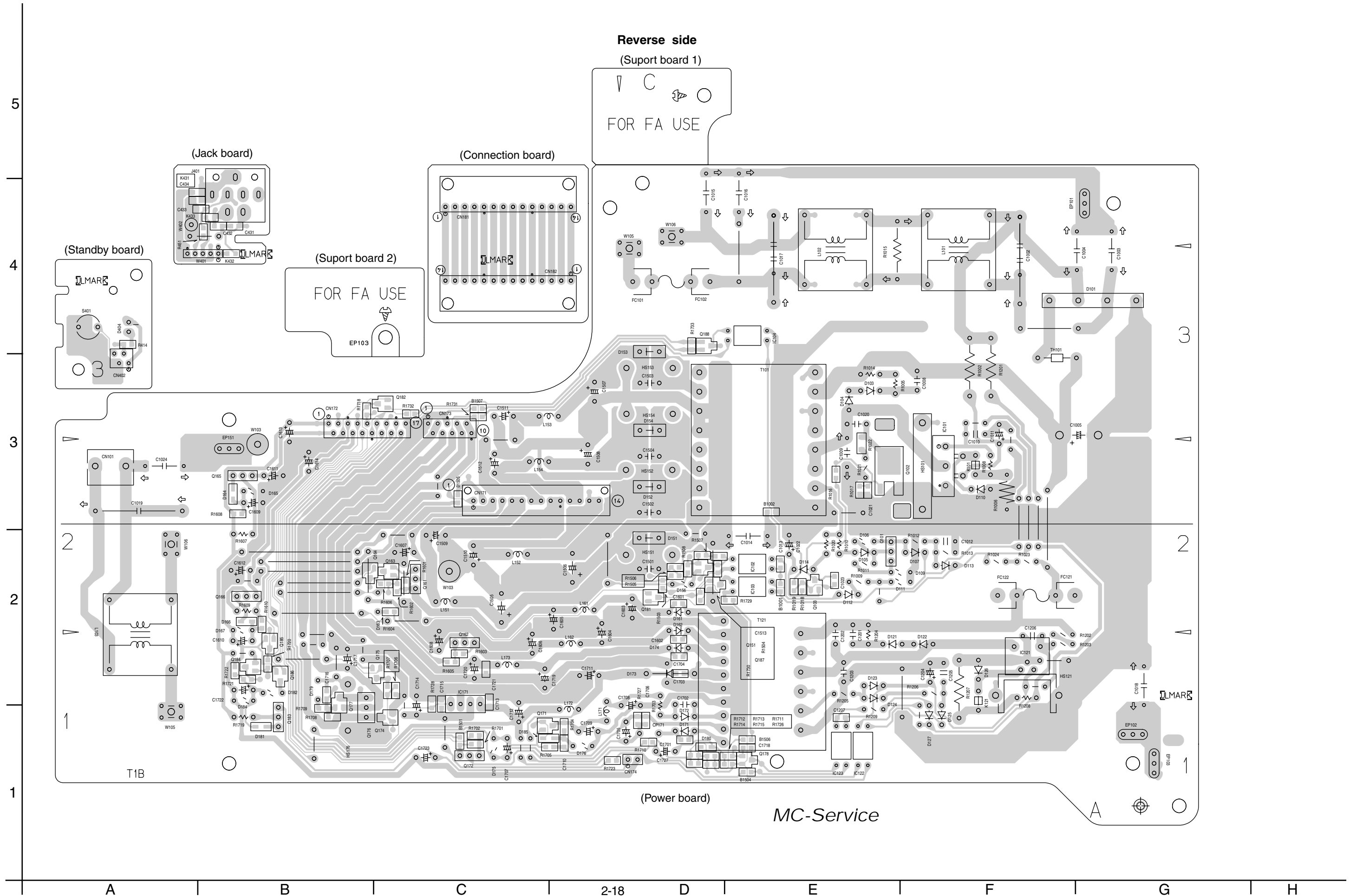
Reverse side



MC-Service



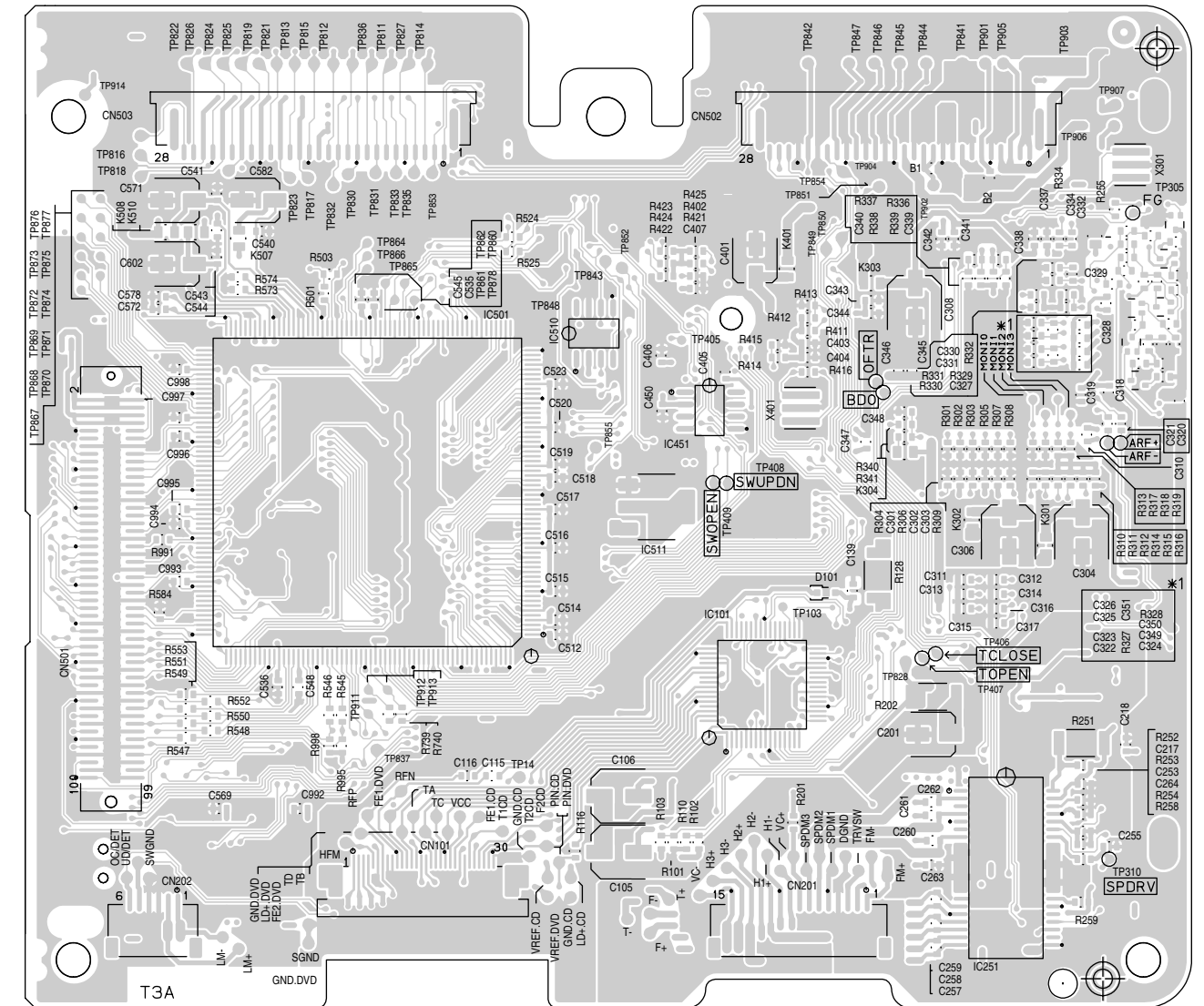
## ■ Power board



## 5



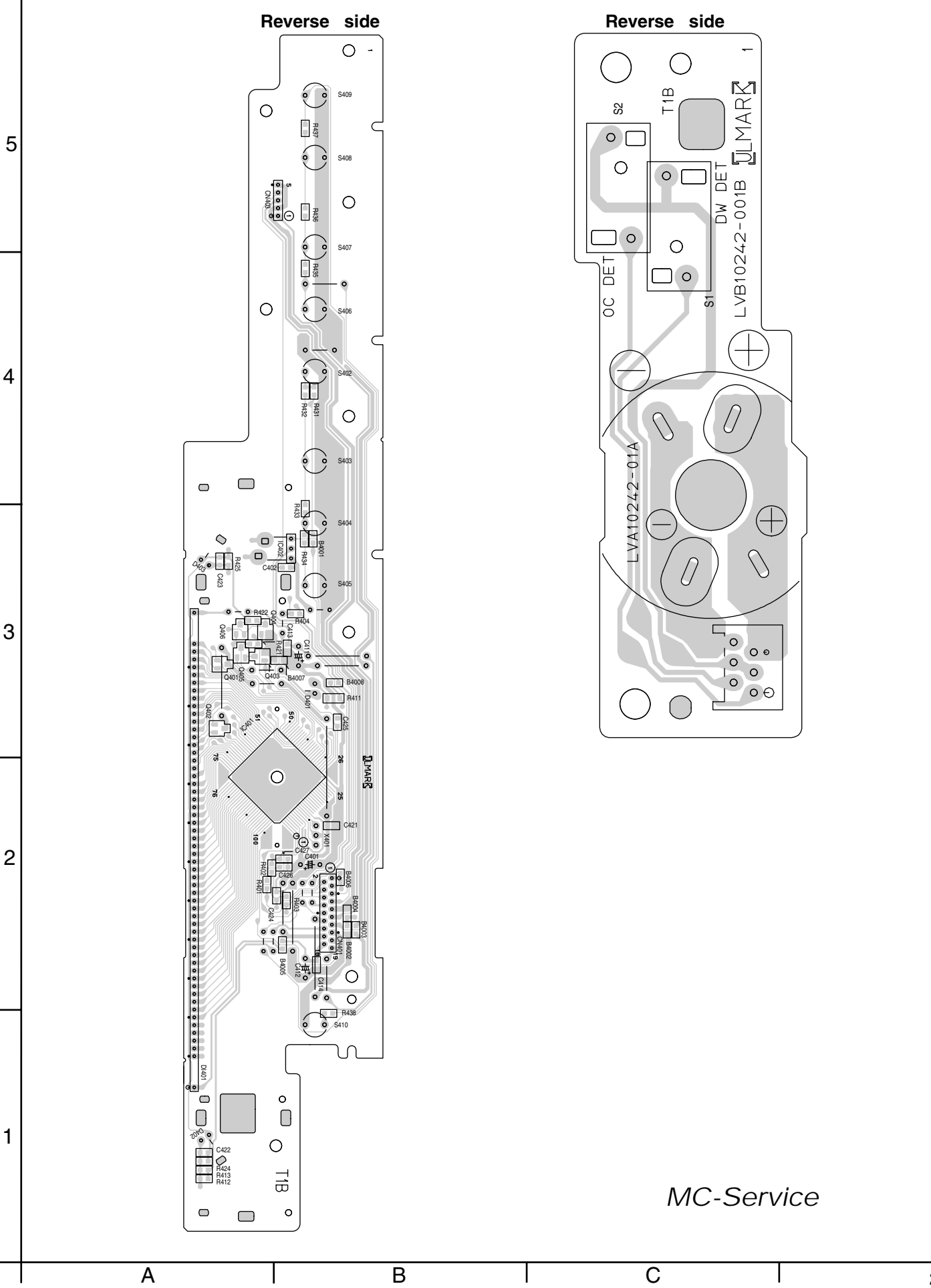
## Reverse side



MC-Service

■ Switch board

■ Spindle motor board



MC-Service

PARTS LIST

[ TH-A75R ]

\* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

B ----- U.K.  
E ----- Continental Europe  
EN ----- Northern Europe  
EV ----- Eastern Europe

- Contents -

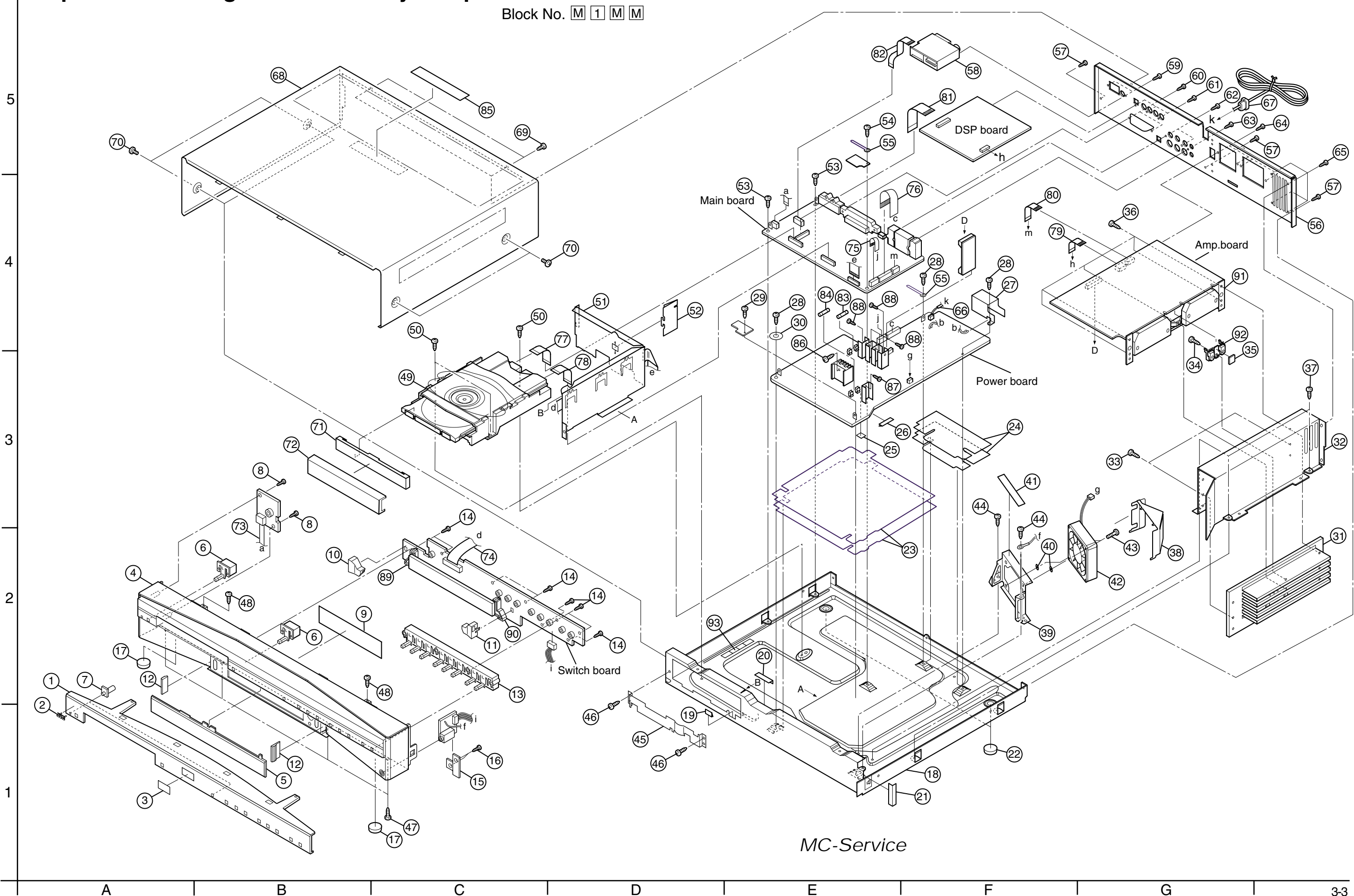
Exploded view of general assembly and parts list (Block No.M1) ..... 3- 3  
Speaker assembly and parts list (SP-WA75)(Block No.M2) ..... 3- 5  
DVD mechanism assembly and parts list (Block No.MJ) ..... 3- 6  
DVD loading base assembly and parts list (Block No.MN) ..... 3- 8  
Electrical parts list (Block No.01~07) ..... 3-10  
Packing materials and accessories parts list (Block No.M3,M5) ..... 3-28

**< M E M O >**

Exploded view of general assembly and parts list

Block No. 

M	1	M	M
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MC-Service

## ■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV21347-003A	FRONT FITTING	1		
	2	PQ45130-6	JVC MARK	1		
	3	LE40794-001A	MARK	1	DVD-VIDEO	
	4	LV10712-001A	FRONT PANEL	1		
	5	LV33810-001A	LENS	1		
	6	LV33811-001A	PUSH BUTTON(PWR	2	POWER&EJECT	
	7	LV43191-001A	INDICATOR LENS	2	POWER&PROGRE	
	8	QYSBSF2610Z	SCREW	2	POWER SW	
	9	LV42851-006A	FL SCREEN	1		
	10	LV33814-001A	LIGHT COVER(L)	1		
	11	LV33815-001A	LIGHT COVER(R)	1		
	12	LV43192-001A	LIGHT LENS	2		
	13	LV21348-001A	PUSH BUTTON	1		
	14	QYSBSF2610Z	SCREW	8		
	15	LV43201-001A	JACK HOLDER	1		
	16	QYSBSF2610Z	SCREW	2	JACK HOLDER-FRO	
	17	LV40240-002A	FOOT	2	FRONT	
	18	LV10713-001A	CHASSIS BASE	1		
	19	LV30225-0E5A	SPACER	1	FOR CHASSIS	
	20	VYSA1R4-050	SPACER	1	FOR CHASSIS	
	21	VYSA1R4-050	SPACER	1	FOR CHASSIS(H/P	
	22	LV40240-002A	FOOT	2	REAR	
	23	LV33826-001A	SPACER	2	FOR CHASSIS	
	24	LV43375-001A	SPACER	2		
	25	LV30225-0F7A	SPACER	1	FOR PWB-CHASSIS	
	26	LV30225-0F4A	SPACER	1	FOR POWER.PB	
	27	LV34123-001A	COIL BARRIER	1		
	28	QYSBST3006Z	T.SCREW	3	POWER.PB-CHASSI	
	29	QYSDST3008Z	SCREW	1		
	30	QYWSS33J010Z	WASHER	1		
	31	LV21350-002A	HEAT SINK	1		
	32	LV21351-001A	H.SINK COVER	1		
	33	QYSBSG3010Z	T.SCREW	2	H.S-H.S.COVER	
	34	QYSBSG3010Z	T.SCREW	1	H.S-IC BKT(B)	
	35	LV43203-001A	SPACER	1	FOR H.SINK.IC B	
	36	QYSBSG3010Z	T.SCREW	5	H.S-IC BKT(A)	
	37	QYSBST3006Z	T.SCREW	3	H.S COVER-CHASI	
	38	LV33947-001A	FAN COVER	1		
	39	LV33817-001A	FAN BRACKET	1		
	40	LV30226-037A	SPACER	2		
	41	LV30225-0J2A	SPACER	1		
	42	QAR0124-003	FAN MOTOR	1		
	43	QYSBSG3020Z	TAP SCREW	2	FAN-FAN.BKT	
	44	QYSBST3006Z	T.SCREW	2	FAN.BKT-CHASSIS	
	45	LV33820-001A	FRONT PLATE	1		
	46	QYSBSG3006Z	T.SCREW	2	FRONT.PLATE-CHA	
	47	QYSDSG3006Z	SCREW	4	FRONT-CHASSIS	
	48	QYSDSG2606Z	SCREW	2	FRONT.FIT-CHASS	

## ■ Parts list (General assembly)

Block No. M1MM

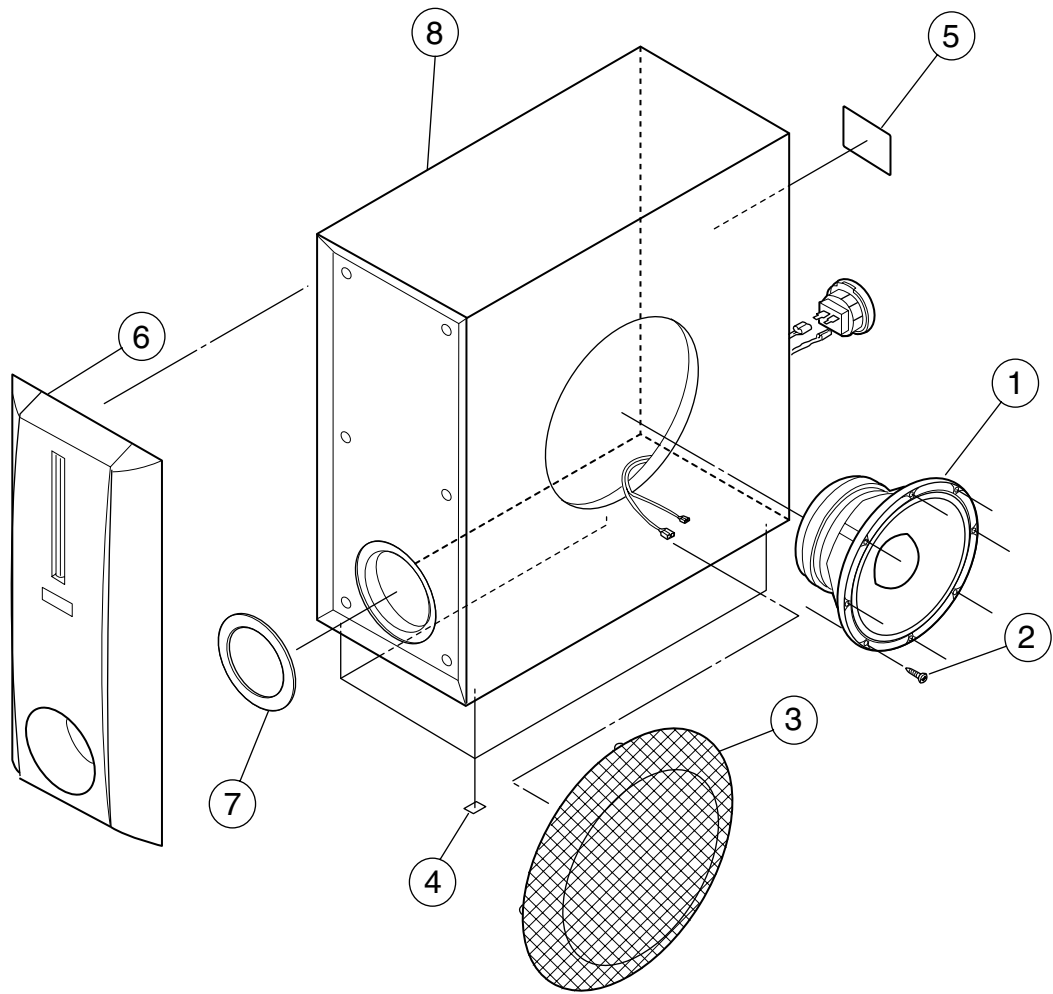
△	Item	Parts number	Parts name	Q'ty	Description	Area
	49	-----	DVD MECHA	1	DVD MECHA ASSY	
	50	QYSBST3010Z	T.SCREW	3	MECHA-CHASSIS	
	51	LV21352-001A	BARRIER	1		
	52	LV43193-001A	PWB SPACER	1		
	53	QYSBST3006Z	T.SCREW	2	MAIN-CHASSIS	
	54	QYSDST3008Z	SCREW	1		
	55	VKZ4001-111S	WIRE CLAMP	2		
	56	LV21358-014A	REAR PANEL	1		EV
		LV21358-013A	REAR PANEL	1	XV-THA75R	E,B,EN
	57	QYSBSGY3008M	SPECIAL SCREW	3	R.P-C.BASE	
	58	QAU0278-001	TUNER	1	TUNER PACK	
	59	QYSBSGY3008M	SPECIAL SCREW	2	TUNER	
	60	QYSBSGY3008M	SPECIAL SCREW	2	SCART	
	61	QYSBSGY3008M	SPECIAL SCREW	3	AUDIO	
	62	QYSBSGY3008M	SPECIAL SCREW	2	VIDEO	
	63	QYSBSGY3008M	SPECIAL SCREW	1	COMPLINK	
	64	QYSBSGY3008M	SPECIAL SCREW	4	SPK	
	65	QYSBSGY3008M	SPECIAL SCREW	4	H.S.BKT	
△	66	QMPK210-205-JN	POWER CORD	1		E,EN,EV
		QMPN160-200-JD	POWER CORD	1		B
△	67	QZW0033-001	STRAIN RELIEF	1		
	68	LV21353-001A	TOP COVER	1		
	69	QYSBSGY3008M	SPECIAL SCREW	2	TOP-REAR	
	70	E406308-004	SPECIAL SCREW	4	TOP-CHASSIS	
	71	LV21349-001A	TRAY FITTING(A)	1		
	72	LV33816-001A	TRAY FITTING(B)	1		
	73	QUQ412-0425CJ	FFC WIRE	1	CN206 TO CN402	
	74	QUQ110-1930BJ	FFC WIRE	1	CN401 TO CN207	
	75	QUQ412-1006CJ	FFC WIRE	1	CN202 TO CN173	
	76	QUQ412-1706CJ	FFC WIRE	1	CN201 TO CN172	
	77	QUQ110-2808AM	FFC WIRE	1	CN208 TO DVD CB	
	78	QUQ110-2808AM	FFC WIRE	1	CN209 TO DVD CB	
	79	QUQ110-0808BJ	FFC WIRE	1	CN701 TO CN592	
	80	QUQ412-0607DJ	FFC WIRE	1	CN204 TO CN702	
	81	QUQ110-2907AJ	FFC WIRE	1	CN203 TO CN591	
	82	QUQ412-1110CJ	FFC WIRE	1	CN205 TO TUNER	
△	83	QMF51W2-4R0-J8	FUSE	1	F 101	
△	84	QMF51W2-R80-J8	FUSE	1	F 121	
	85	E409396-003	CAUTION LABEL	1		
	86	QYSBSG3012Z	SCREW	1	FOR IC101	
	87	QYSBSE3008Z	SCREW	1	FOR IC121	
	88	QYSBSE3008Z	SCREW	4		
	89	LV33812-001A	FL HOLDER(L)	1		
	90	LV33813-001A	FL HOLDER(R)	1		
	91	LV21357-001A	IC BRACKET(A)	1	FOR IC701,IC721	
	92	LV33819-001A	IC BRACKET(B)	1	FOR Q714,Q717	
△	93	LV41843-002A	LASER CAUTION	1		



# Speaker assembly and parts list

(SP-WA75)

Block No. M 2 M M



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■ Parts list (Speaker) SP-WA75

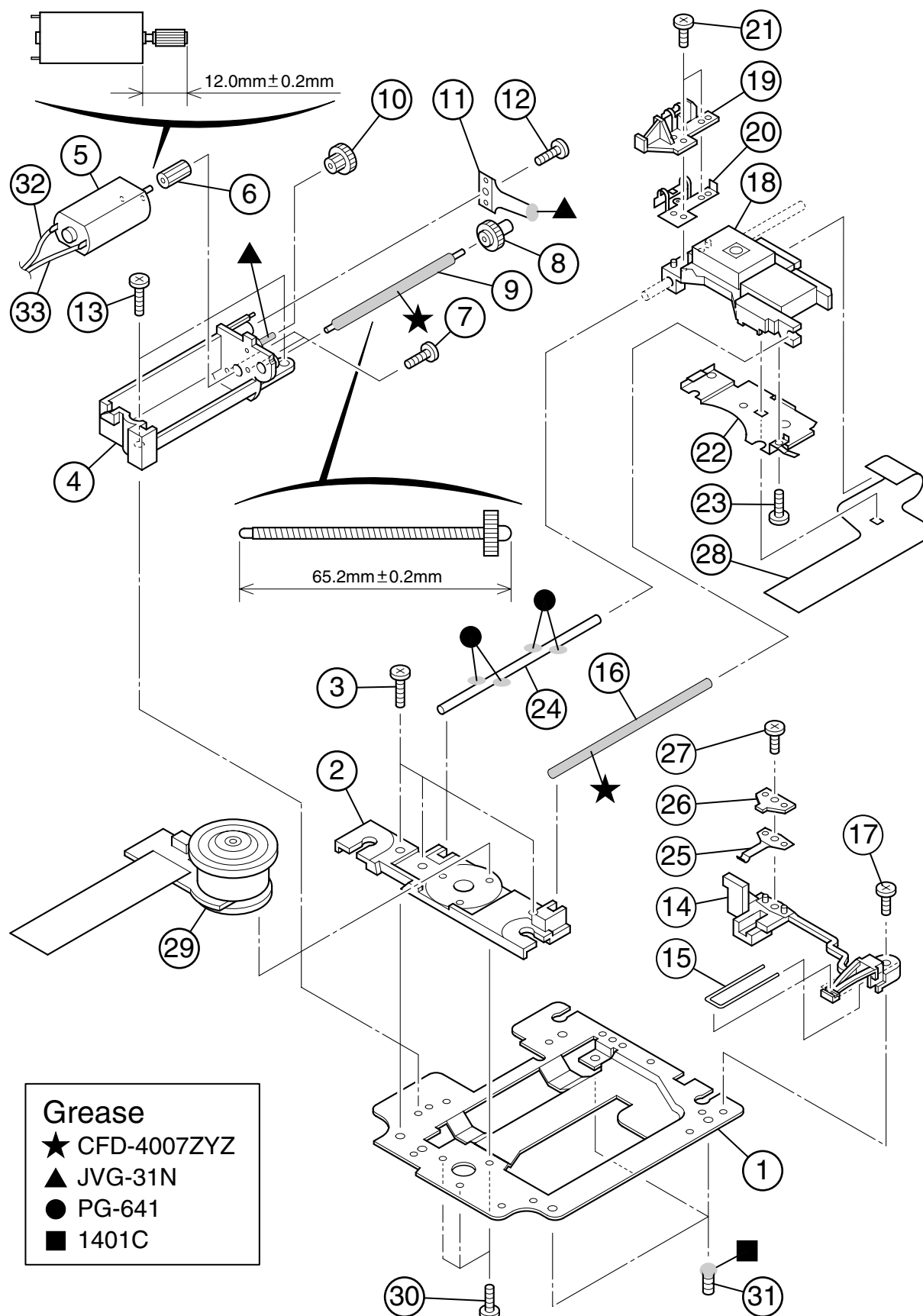
Block No. M2MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	CR20002801	SPEAKER	1		
	2	7005942502	SCREW	8		
	3	9920002101	NET ASSY	1		
	4	5600006901	RUBBER FOOT	4		
	5	6000185631	RATING LABEL	1		
	6	-----	BAFFLE ASSY	1		
	7	-----	BAFFLE BOARD	1		
	8	-----	CABINET	1		

# DVD mechanism assembly and parts list

Block No. M J M M

EXL-V73-1YPC



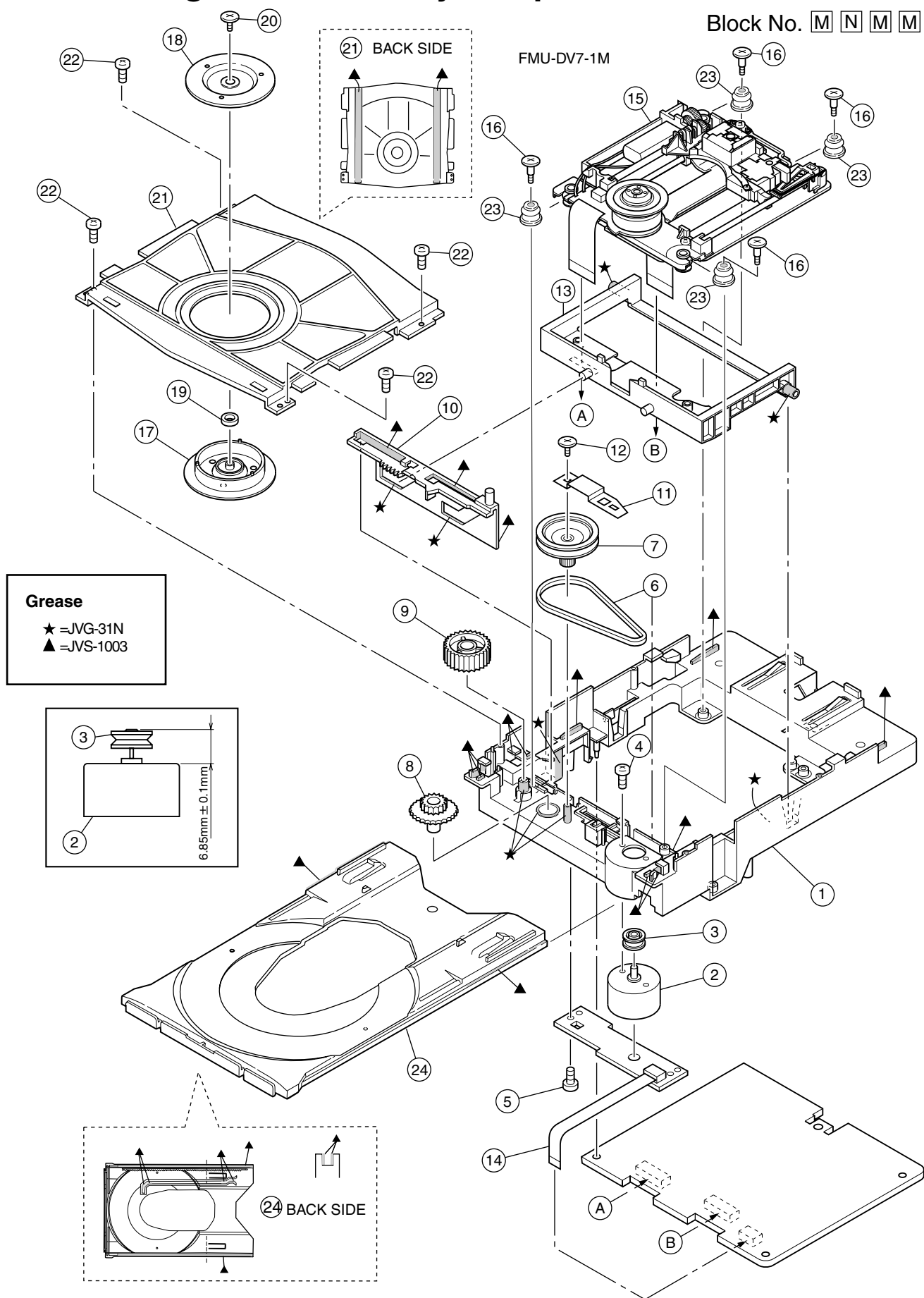
## ■ Parts list (DVD mechanism)

Block No. MJMM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LE20520-002A	MECHA.BASE	1		
	2	LE20516-001A	SPINDLE BASE	1		
	3	QYSDST2605M	SCREW	3		
	4	LE30909-001A	FEED HOLDER ASS	1		
	5	QAR0165-001	FEED MOTOR	1		
	6	LV41510-001A	FEED GEAR T	1		
	7	QYSPSPU2040M	SCREW	2		
	8	LV41512-001A	FEED GEAR E	1		
	9	LV41517-003A	LEAD SCREW	1		
	10	LV41511-002A	FEED GEAR M	1		
	11	LE40742-001A	THRUST SPRING	1		
	12	QYSDSF2005Z	SCREW	1		
	13	QYSDST2605M	SCREW	2		
	14	LE20517-001A	SHAFT HOLDER	1		
	15	LE40744-001A	BAR SPRING(1)	1		
	16	LV41121-002A	SHAFT	1		
	17	QYSDST2605M	SCREW	1		
	18	QAL0452-001	PICK UP	1		
	19	LE20519-001A	SW.ACTUATOR	1		
	20	LE30886-001A	LEAD SPRING	1		
	21	QYSPSFU1740Z	SCREW	2		
	22	LE30888-003A	P.U.SPRING	1		
	23	QYSPSGU1430Z	SCREW	1		
	24	LV41121-002A	SHAFT	1		
	25	LE40743-001A	T.SPRING(S)	1		
	26	LE40774-001A	PLATE	1		
	27	QYSDST2606Z	SCREW	1		
	28	QAL0284-001	FPC	1		
	29	QAR0241-001	SPINDLE MOTOR	1		
	30	QYSPSPU1760Z	SCREW	3		
	31	QYYASPF2608N	HEX SCREW	3		
	32	QUB549-05A1A1	SIN TWIST WIRE	1		
	33	QUB544-05A1A1	SIN TWIST WIRE	1		

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# DVD loading base assembly and parts list



## ■ Parts list (DVD loading mechanism)

Block No. MNMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10454-007A-CK	LOADING BASE	1		
	2	QAR0164-001	MOTOR	1	MABUCHI	
	3	LV42087-001A	MOTOR PULLEY	1		
	4	QYSPSPU1730Z	SCREW	1	FOR MOTOR	
	5	VKZ4777-003	MINI SCREW	1		
	6	LV42209-001A	BELT	1		
	7	LV42084-002A	PULLEYGEAR	1		
	8	LV42085-002A	MIDDLE GEAR	1		
	9	LV42086-001A	IDLE GEAR	1		
	10	LV32514-002A	SLIDE CAM	1		
	11	LV42348-001A	P GEAR BKT	1		
	12	VKZ4777-003	MINI SCREW	1	FOR PULLEY GEAR	
	13	LV20912-002A	ELEVATOR	1		
	14	QUQ110-0610AJ	FFC WIRE	1		
	15	-----	DVD TRAVERSE ME	1		
	17	LV32417-001A	CLAMPER	1		
	18	LV42089-002A	YOKE	1		
	19	LV42930-003A	MAGNET	1		
	20	LV41741-001A	SPECIAL SCREW	1		
	21	LV20913-002A	CLAMPER BASE	1		
	22	QYSBSF2008Z	SCREW	4		
	23	LV41659-001A	INSULATOR	4		
	24	LV10455-002A-CK	TRAY	1		

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## ■ Electrical parts list (Power board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	C 431	NCB31CK-223X	C CAPACITOR		
	C 432	NCB31CK-223X	C CAPACITOR		
	C 433	NCB31CK-103X	C CAPACITOR		
	C 434	NCF31CZ-104X	C CAPACITOR		
	CN101	QGA7901C1-02	CONNECTOR		
	CN171	QGB2510J1-14	CONNECTOR		
	CN172	QGF1205C1-17	CONNECTOR		
	CN173	QGF1205C1-10	CONNECTOR		
	CN174	QGA2501C1-02	2P CONNECTOR		
	CN181	QGB2510K1-14	CONNECTOR		
	CN182	QGB2510K1-14	CONNECTOR		
	CN402	QGF1205F1-04	CONNECTOR	STANDBY TO MAIN	
	CP171	ICP-N10-T	ICP		
△	C1002	QFZ9075-104	M CAPACITOR	.10MF	
	C1005	QEZO600-477	E CAPACITOR	470MF	
	C1008	QCZ0136-332Z	C CAPACITOR	3300PF	
	C1009	QCZ0366-681	C CAPACITOR	680PF	
	C1010	QCBBIHK-471Y	C CAPACITOR	470PF 10% 50V	
	C1011	QTMN1VM-476Z	E CAPACITOR		
	C1012	QCSB1HJ-470Y	C CAPACITOR	47PF 5% 50V	
△	C1015	QCZ9079-102	C CAPACITOR	1000PF	
△	C1016	QCZ9079-102	C CAPACITOR	1000PF	
△	C1017	QFZ9075-334	M CAPACITOR	.33MF	
△	C1018	QCZ9079-102	C CAPACITOR	1000PF	
△	C1019	QFZ9075-334	M CAPACITOR	.33MF	
	C1020	QCZ0136-101Z	C CAPACITOR	100PF	
	C1021	NCB21CK-474X	C CAPACITOR		
	C1022	QTMN1HM-396Z	E CAPACITOR		
	C1023	NCB31CK-223X	C CAPACITOR		
	C1201	QCZ0136-332Z	C CAPACITOR	3300PF	
	C1202	QCZ0136-101Z	C CAPACITOR	100PF	
	C1203	QCZ0136-101Z	C CAPACITOR	100PF	
	C1204	QTMN1HM-396Z	E CAPACITOR		
	C1205	QCBBIHK-221Y	C CAPACITOR	220PF 10% 50V	
	C1206	QCBBIHK-471Y	C CAPACITOR	470PF 10% 50V	
	C1207	NCB21HK-104X	C CAPACITOR		
	C1501	QCZ0136-332Z	C CAPACITOR	3300PF	
	C1502	QCZ0136-332Z	C CAPACITOR	3300PF	
	C1503	QCZ0136-332Z	C CAPACITOR	3300PF	
	C1504	QCZ0136-332Z	C CAPACITOR	3300PF	
	C1505	QTMN1HM-108	E CAPACITOR		
	C1506	QTMN1HM-108	E CAPACITOR		
	C1507	QTMN1VM-108	E CAPACITOR		
	C1508	QTMN1VM-108	E CAPACITOR		
	C1509	QETM1HM-477	E CAPACITOR	470MF 20% 50V	
	C1510	QETM1HM-477	E CAPACITOR	470MF 20% 50V	
	C1511	QETN1VM-477Z	E CAPACITOR	470MF 20% 35V	
	C1512	QETN1VM-477Z	E CAPACITOR	470MF 20% 35V	
	C1513	NCS31HJ-221X	C CAPACITOR		
	C1601	NCS31HJ-101X	C CAPACITOR		
	C1602	NCS31HJ-101X	C CAPACITOR		
	C1603	QTMN1EM-567	E CAPACITOR		
	C1604	QTMN1EM-227Z	E CAPACITOR		
	C1605	QETN1EM-227Z	E CAPACITOR	220MF 20% 25V	
	C1606	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C1607	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C1608	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C1609	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1610	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1611	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C1612	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C1613	QETN1EM-227Z	E CAPACITOR	220MF 20% 25V	
	C1614	QETN1EM-227Z	E CAPACITOR	220MF 20% 25V	
	C1701	NCS31HJ-101X	C CAPACITOR		
	C1702	QCZ0136-101Z	C CAPACITOR	100PF	
	C1703	NCS31HJ-101X	C CAPACITOR		

△	Item	Parts number	Parts name	Remarks	Area
	C1704	NCS31HJ-101X	C CAPACITOR		
	C1705	QTMN1AM-826Z	E CAPACITOR		
	C1706	NCF21CZ-105X	C CAPACITOR		
	C1707	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C1708	QTMN1HM-396Z	E CAPACITOR		
	C1709	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C1710	NCB31EK-223X	C CAPACITOR		
	C1711	QTMN1AM-108Z	E CAPACITOR		
	C1712	QETN1AM-108Z	E CAPACITOR	1000MF 20% 10V	
	C1713	NCB31CK-104X	C CAPACITOR		
	C1714	QETN1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C1715	NCB31CK-104X	C CAPACITOR		
	C1716	NCB31CK-104X	C CAPACITOR		
	C1717	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C1718	NCS31HJ-101X	C CAPACITOR		
	C1719	QTMN1CM-827	E CAPACITOR		
	C1720	QETN1CM-227Z	E CAPACITOR	220MF 20% 16V	
	C1721	NCF21CZ-105X	C CAPACITOR		
	C1722	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C1723	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C1727	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V	
△	D 101	D3SBA60	DIODE		
	D 103	ERA18-04-T1	FR DIODE		
	D 104	ERA18-04-T1	FR DIODE		
	D 105	ERA18-04-T1	FR DIODE		
	D 106	MTZJ10B-T2	ZENER DIODE		
	D 107	AG01Z-T1	SI DIODE		
	D 109	MTZJ20B-T2	Z DIODE		
	D 110	D1NS4-T1	SB DIODE		
	D 112	ERA18-04-T1	FR DIODE		
	D 113	ERA18-04-T1	FR DIODE		
	D 114	ERA18-04-T1	FR DIODE		
	D 121	ERA18-04-T1	FR DIODE		
	D 122	ERA18-04-T1	FR DIODE		
	D 123	ERA18-04-T1	FR DIODE		
	D 124	ERA18-04-T1	FR DIODE		
	D 125	ERA18-04-T1	FR DIODE		
	D 127	ERA18-04-T1	FR DIODE		
	D 151	FMN-G12S	SI DIODE		
	D 152	FMN-G12S	SI DIODE		
	D 153	FML-G22S	SI DIODE		
	D 154	FML-G22S	SI DIODE		
	D 156	UDZS8.2B-X	SI DIODE		
	D 161	EU2YX-LFH6K	FR DIODE		
	D 162	EU2YX-LFH6K	FR DIODE		
	D 163	1SS133-T2	SI DIODE		
	D 164	1SS355-X	DIODE		
	D 165	MTZJ7.5C-T2	ZENER DIODE		
	D 166	1SS355-X	DIODE		
	D 167	MTZJ7.5C-T2	ZENER DIODE		
	D 171	ERA18-04-T1	FR DIODE		
	D 172	ERA18-04-T1	FR DIODE		
	D 173	RK34-LFB2	SB DIODE		
	D 174	EU2YX-LFH6K	FR DIODE		
	D 175	MTZJ3.6B-T2	S.B.DIODE		
	D 176	MTZJ36C-T2	Z.DIODE		
	D 179	1SS133-T2	SI DIODE		
	D 180	UDZS5.1B-X	Z DIODE		
	D 181	1SS355-X	DIODE		
	D 182	MTZJ9.1C-T2	ZENER DIODE		
	D 184	MTZJ11B-T2	ZENER DIODE		
	D 185	1SS355-X	DIODE		
	D 404	SLR-342VC-T	LED	STANDBY LED	
	EP101	QNZ0136-001Z	EARTH PLATE		
	EP103	QNZ0136-001Z	EARTH PLATE		
	EP151	QNZ0136-001Z	EARTH PLATE		

## ■ Electrical parts list (Power board)

Block No. 01

Item	Parts number	Parts name	Remarks	Area	Item	Parts number	Parts name	Remarks	Area
FC101	QNG0003-001Z	FUSE CLIP			R1005	QRL01DJ-683X	OMF RESISTOR	68K 5% 1/1W	
FC102	QNG0003-001Z	FUSE CLIP			R1006	QRM024K-R10	MP RESISTOR	10% 1/2W	
FC121	QNG0003-001Z	FUSE CLIP			R1008	QRL01DJ-681X	OMF RESISTOR	680 5% 1/1W	
FC122	QNG0003-001Z	FUSE CLIP			R1009	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
FW401	QJK018-050602	SIN CR C-B WIRE	TO HP		R1010	QRZ9005-220X	F RESISTOR	22 1/4W	
HS101	LV43233-002A	HEAT SINK			R1011	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
HS121	E70306-002	HEAT SINK			R1012	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
HS151	LV43302-002A	HEAT SINK			R1014	QRL01DJ-823X	OMF RESISTOR	82K 5% 1/1W	
HS152	LV43302-002A	HEAT SINK			R1015	QRZ9037-105	COMP RESISTOR	1.0M 1/4W	
HS153	LV43302-001A	HEAT SINK			R1016	NRSA63J-222X	MG RESISTOR		
HS154	LV43302-001A	HEAT SINK			R1017	NRSA63J-104X	MG RESISTOR		
HS176	LE40505-001A	HEAT SINK			R1018	NRSA63J-223X	MG RESISTOR		
IC101	STR-F6667B	IC			R1019	NRSA63J-472X	MG RESISTOR		
IC102	PC123Y02	IC(PHOTO COUPLE			R1020	QRZ9005-220X	F RESISTOR	22 1/4W	
IC103	PC123Y02	IC(PHOTO COUPLE			R1021	QRE141J-155Y	C RESISTOR	1.5M 5% 1/4W	
IC104	PC123Y02	IC(PHOTO COUPLE			R1022	NRS181J-125X	RESISTOR		
IC121	STR-G6651	IC			R1023	QRE141J-564Y	C RESISTOR	560K 5% 1/4W	
IC122	PC123Y02	IC(PHOTO COUPLE			R1024	QRE141J-564Y	C RESISTOR	560K 5% 1/4W	
IC123	PC123Y02	IC(PHOTO COUPLE			R1201	QRL027J-683	OMF RESISTOR	68K 5% 1/2W	
IC171	PQ05RD21	IC			R1202	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
J 401	QNS0177-001	JACK	HEADPHONE		R1203	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
K 101	QQR1277-001Z	F.BEADS			R1204	QRL01DJ-683X	OMF RESISTOR	68K 5% 1/1W	
K 121	QQR1277-001Z	F.BEADS			R1205	QRE141J-270Y	C RESISTOR	27 5% 1/4W	
K 431	NQR0007-002X	FERRITE BEADS			R1206	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
K 432	NQR0007-002X	FERRITE BEADS			R1207	QRT027J-R47	MF RESISTOR	5% 1/2W	
K 433	NQR0007-002X	FERRITE BEADS			R1208	QRL01DJ-681X	OMF RESISTOR	680 5% 1/1W	
L 101	QQR1334-003	CHOKE COIL			R1209	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
L 102	QQR1334-003	CHOKE COIL			R1503	NRSA63J-822X	MG RESISTOR		
L 103	QQR1334-003	CHOKE COIL			R1504	NRSA63J-182X	MG RESISTOR		
L 151	QQL31AM-150Z	INDUCTOR			R1505	NRSA63J-103X	MG RESISTOR		
L 152	QQL31AM-150Z	INDUCTOR			R1506	NRSA63J-104X	MG RESISTOR		
L 153	QQL31AM-150Z	INDUCTOR			R1507	NRSA63J-102X	MG RESISTOR		
L 154	QQL31AM-150Z	INDUCTOR			R1508	NRSA63J-153X	MG RESISTOR		
L 161	QQL244K-100Z	INDUCTOR			R1601	NRSA63J-102X	MG RESISTOR		
L 162	QQL244K-100Z	INDUCTOR			R1602	NRSA63J-102X	MG RESISTOR		
L 171	QQL244K-R22Z	INDUCTOR			R1603	NRSA63J-222X	MG RESISTOR		
L 172	QQL44BK-220Z	INDUCTOR			R1604	NRSA63J-102X	MG RESISTOR		
L 173	QQL26AK-220Z	INDUCTOR			R1605	NRSA63J-102X	MG RESISTOR		
Q 101	KTC3203/OY/-T	TRANSISTOR			R1606	NRSA63J-102X	MG RESISTOR		
Q 102	2SC5465-X	TRANSISTOR			R1607	QRZ9005-100X	F RESISTOR	10 1/4W	
Q 103	KTA1504/YG/-X	TRANSISTOR			R1608	NRSA63J-222X	MG RESISTOR		
Q 151	2SC3906K/RS/-X	HIP TRANSISTOR			R1609	QRZ9005-100X	F RESISTOR	10 1/4W	
Q 161	KTA1271/OY/-T	TRANSISTOR			R1610	NRSA63J-222X	MG RESISTOR		
Q 162	KTC3203/OY/-T	TRANSISTOR			R1701	NRSA63J-103X	MG RESISTOR		
Q 163	KTA1504/YG/-X	TRANSISTOR			R1702	NRSA63J-223X	MG RESISTOR		
Q 164	KRC103S-X	DIGITAL TR			R1703	QRZ9005-100X	F RESISTOR	10 1/4W	
Q 165	KTC3203/OY/-T	TRANSISTOR			R1704	NRSA63J-272X	MG RESISTOR		
Q 166	KTA1271/OY/-T	TRANSISTOR			R1705	NRSA63J-223X	MG RESISTOR		
Q 171	KTA1504/YG/-X	TRANSISTOR			R1706	NRSA63J-104X	MG RESISTOR		
Q 172	2SC3576-JVC-T	TRANSISTOR			R1707	NRSA63J-103X	MG RESISTOR		
Q 174	SI2305DS-X	TRANSISTOR			R1708	NRSA63J-122X	MG RESISTOR		
Q 175	KRC103S-X	DIGITAL TR			R1709	NRSA63J-472X	MG RESISTOR		
Q 176	KTA1046/Y/	TRANSISTOR			R1710	NRSA63J-221X	MG RESISTOR		
Q 177	KTC3875/YG/-X	TRANSISTOR			R1711	NRSA63J-101X	MG RESISTOR		
Q 178	KTC3875/YG/-X	TRANSISTOR			R1712	NRSA63J-0R0X	MG RESISTOR		
Q 181	KRC103S-X	DIGITAL TR			R1713	NRSA63J-105X	MG RESISTOR		
Q 182	KRC103S-X	DIGITAL TR			R1715	NRSA63J-103X	MG RESISTOR		
Q 183	KTC3203/OY/-T	TRANSISTOR			R1718	NRSA63J-472X	MG RESISTOR		
Q 184	KRA103S-X	DIGITAL TR			R1719	QRZ9005-100X	F RESISTOR	10 1/4W	
Q 185	KRC103S-X	DIGITAL TR			R1720	NRSA63J-103X	MG RESISTOR		
Q 186	KRC103S-X	DIGITAL TR			R1721	NRSA63J-102X	MG RESISTOR		
Q 187	KTC3875/YG/-X	TRANSISTOR			R1722	NRSA63J-104X	MG RESISTOR		
Q 188	KTC3875/YG/-X	TRANSISTOR			R1723	NRSA63J-221X	MG RESISTOR		
R 414	NRSA63J-221X	MG RESISTOR			R1726	NRSA63J-681X	MG RESISTOR		
R 451	NRSA63J-102X	MG RESISTOR			R1729	NRSA63J-221X	MG RESISTOR		
R1002	QRL027J-823	OMF RESISTOR	82K 5% 1/2W		R1730	NRSA63J-472X	MG RESISTOR		

■ Electrical parts list (Power board) Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	
△	R1731	NRSA63J-221X	MG RESISTOR	POWER SW		
	R1732	NRSA63J-472X	MG RESISTOR			
	R1733	NRSA63J-103X	MG RESISTOR			
	S 401	QSW0683-001Z	PUSH SWITCH			
	T 101	QQS0174-001	SW TRANS			
	T 121	QQS0097-001	SW TRANSF			
	TH101	QAD0141-4R0	N THERMISTOR	TO HP		
	W 103	QUB070-09PPPP	WIRE			
	W 105	QUB112-27PPPP	SIN TWIST WIRE			
	W 106	QUB111-23PPPP	SIN TWIST WIRE			
	W 401	QJK018-050602	SIN CR C-B WIRE			
	W 402	QUB230-12DMHP	WIRE			



## ■ Electrical parts list (Main board)

## Block No. 02

Item	Parts number	Parts name	Remarks	Area	Item	Parts number	Parts name	Remarks	Area
CN201	QGF1205C1-17	CONNECTOR	TO POWER-SUPPLY		C2475	QETN1EM-475Z	E CAPACITOR	SCART LINE(E)	
CN202	QGF1205C1-10	CONNECTOR	TO POWER-SUPPLY		C2476	QETN1EM-475Z	E CAPACITOR	SCART-RIN(E)	
CN203	QGF1016C2-29W	FFC/FPC CONNE	TO DSP		C2511	QETN1HM-475Z	E CAPACITOR	HP	
CN204	QGF1205C1-06	CONNECTOR	TO P-AMP		C2512	NCS31HJ-180X	C CAPACITOR	HP	
CN205	QGF1205C1-11	CONNECTOR	TO TUNER		C2513	QETN1CM-476Z	E CAPACITOR	HP	
CN206	QGF1205C1-04	CONNECTOR	TO LED		C2514	NCB31HK-103X	C CAPACITOR	HP	
CN207	QGF1016C2-19W	CONNECTOR	TO FRONT		C2521	QETN1HM-475Z	E CAPACITOR	HP	
CN208	QGF1016C2-28W	FFC/FPC CONNE	TO DVD		C2522	NCS31HJ-180X	C CAPACITOR	HP	
CN209	QGF1016C2-28W	FFC/FPC CONNE	TO DVD		C2523	QETN1CM-476Z	E CAPACITOR	HP	
CP271	ICP-N5-T	ICP			C2524	NCB31HK-103X	C CAPACITOR	HP	
C2071	QETN1CM-106Z	E CAPACITOR	RDS		C2591	QETN1CM-476Z	E CAPACITOR	HP	
C2072	NCB31CK-473X	C CAPACITOR	RDS		C2592	QETN1CM-476Z	E CAPACITOR	HP	
C2073	NCB31CK-104X	C CAPACITOR	RDS		C2701	QEZ0554-479	E CAPACITOR	CPU	
C2074	NCB31HK-561X	C CAPACITOR	RDS		C2702	QETN0JM-227Z	E CAPACITOR	CPU	
C2075	QETN1HM-225Z	E CAPACITOR	RDS		C2703	QETN1HM-225Z	E CAPACITOR	CPU	
C2076	NCB31HK-331X	C CAPACITOR	RDS		C2704	NCB31HK-223X	C CAPACITOR	CPU	
C2077	NCS31HJ-820X	C CAPACITOR	RDS		C2705	NCB31HK-102X	C CAPACITOR	CPU	
C2078	NCS31HJ-470X	C CAPACITOR	RDS		C2706	QETN1AM-107Z	E CAPACITOR	CPU	
C2091	QETN1CM-106Z	E CAPACITOR	TU9V		C2707	NCB31HK-103X	C CAPACITOR	CPU	
C2092	QETN1CM-107Z	E CAPACITOR	TU9V		C2708	NCB31HK-103X	C CAPACITOR	CPU	
C2101	NCB30JK-105X	C CAPACITOR	DVD-118		C2751	NCB30JK-105X	C CAPACITOR	TH-DET	
C2151	NCB30JK-105X	C CAPACITOR	DVD-110(E)		C2752	NCB31CK-104X	C CAPACITOR	KEY1	
C2182	NCB30JK-105X	C CAPACITOR	VER.E		C2753	NCB31CK-104X	C CAPACITOR	KEY2	
C2191	QETN1CM-476Z	E CAPACITOR	VIDEO-SW1		C2801	QETN1HM-224Z	E CAPACITOR	S-MUTE	
C2192	NCB31HK-103X	C CAPACITOR	VIDEO-SW1		C2891	NCB31HK-221X	C CAPACITOR		
C2201	NCB30JK-105X	C CAPACITOR	CV-IN1(VCR)		C2892	NCB31HK-221X	C CAPACITOR		
C2202	NCB30JK-105X	C CAPACITOR	CV-IN2(DBS)		C2901	QETN1CM-107Z	E CAPACITOR	V5V	
C2203	NCB30JK-105X	C CAPACITOR	CV-IN		C2902	NCB31CK-103X	C CAPACITOR		
C2211	NCB31CK-104X	C CAPACITOR	C-IN1(VCR)		C2903	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
C2212	NCB31CK-104X	C CAPACITOR	C-IN2(DBS)		C2904	NCB31CK-103X	C CAPACITOR		
C2213	NCB30JK-105X	C CAPACITOR	C-IN		C2951	QETN0JM-477Z	E CAPACITOR	D5V	
C2214	NCS31HJ-470X	C CAPACITOR	C-IN1(VCR)		C2952	QETN0JM-108Z	E CAPACITOR	D5V(DSP)	
C2215	NCS31HJ-470X	C CAPACITOR	C-IN2(DBS)		D2091	1SS355-X	DIODE	TU9V	
C2221	NCB30JK-105X	C CAPACITOR	Y-IN1(VCR)		D2092	MA3062/H/-X	ZENER DIODE	TU9V	
C2222	NCB30JK-105X	C CAPACITOR	Y-IN2(DBS)		D2701	1SS355-X	DIODE		
C2223	NCB30JK-105X	C CAPACITOR	Y-IN		D2702	1SS355-X	DIODE		
C2224	NCS31HJ-470X	C CAPACITOR	Y-IN1(VCR)		D2703	MA3043/H/-X	ZENER DIODE		
C2225	NCS31HJ-470X	C CAPACITOR	Y-IN2(DBS)		D2704	1SS355-X	DIODE		
C2291	QETN1CM-476Z	E CAPACITOR	VIDEO-SW2		D2705	1SS355-X	DIODE		
C2292	NCB31HK-103X	C CAPACITOR	VIDEO-SW2		D2821	1SS355-X	DIODE	SAFETY(12V)	
C2301	QETN1AM-476Z	E CAPACITOR	CV-IN		D2822	1SS355-X	DIODE	SAFETY(DVD3.3V)	
C2302	NDC31HJ-101X	C CAPACITOR	CV-IN(E)		D2825	1SS355-X	DIODE	SAFETY(A5V)	
C2311	NCB30JK-105X	C CAPACITOR	C-IN		D2826	1SS355-X	DIODE	SAFETY(A5V)	
C2312	NDC31HJ-101X	C CAPACITOR	C-IN(E)		D2827	MA3062/H/-X	ZENER DIODE	SAFETY(A5V)	
C2313	NDC31HJ-560X	C CAPACITOR	C-IN(E)		D2828	1SS355-X	DIODE	SAFETY	
C2321	NCB30JK-105X	C CAPACITOR	Y1-IN		D2891	MA3062/H/-X	ZENER DIODE		
C2331	NCB30JK-105X	C CAPACITOR	Y2-IN		EP201	QNZ0136-001Z	EARTH PLATE		
C2341	NCB30JK-105X	C CAPACITOR	CB-IN		EP202	QNZ0136-001Z	EARTH PLATE		
C2351	NCB30JK-105X	C CAPACITOR	CR-IN		HS291	LE40505-001A	HEAT SINK		
C2391	QETN1AM-477Z	E CAPACITOR	VIDEO DRIVER		IC201	SAA6588T/V2-X	IC	RDS-DECODER	
C2392	NCB31CK-104X	C CAPACITOR	VIDEO DRIVER		IC211	BA7603F-X	IC	VIDEO SW1	
C2393	QETN1AM-477Z	E CAPACITOR	VIDEO DRIVER		IC221	BA7603F-X	IC	VIDEO SW2	
C2394	NCB31CK-104X	C CAPACITOR	VIDEO DRIVER		IC231	LA73054-X	IC	VIDEO DRIVER	
C2395	NCB31CK-104X	C CAPACITOR	VIDEO DRIVER		IC251	BA15218F-XE	IC	HP	
C2401	QETN0JM-477Z	E CAPACITOR	CV-OUT		IC271	MN101C49GKR1	IC	SYSTEM MICOM	
C2411	NCB31CK-104X	C CAPACITOR	SC-OUT		IC272	BD4740G-W	IC	RESET IC	
C2421	QETN0JM-477Z	E CAPACITOR	SY-OUT		IC291	NJM78M05FA	IC	A5V	
C2422	QETN0JM-477Z	E CAPACITOR	SCART-CV/Y(E)		J2201	QNN0523-001	PIN JACK	S/CV VIDEO-IN	
C2424	NCS31HJ-470X	C CAPACITOR	SCART-CV/Y(E)		J2401	QNN0434-001	PIN JACK	S/CV VIDEO-OUT	
C2431	QETN0JM-477Z	E CAPACITOR	Y-OUT/SCART-G		J2403	QNZ0516-001	RGB CONNECTOR	SCART CONNECTOR	
C2441	QETN0JM-477Z	E CAPACITOR	CB-OUT/SCART-B		J2891	QNS0089-001	3.5 JACK	COMPULINK	
C2451	QETN0JM-477Z	E CAPACITOR	CR-OUT/SCART-RC		K2291	NQR0007-002X	FERRITE BEADS	VIDEO SW2	
C2471	NCB31HK-331X	C CAPACITOR	SCART-LOUT(E)		L2391	QQL25CK-221Z	INDUCTOR		
C2472	NCB31HK-331X	C CAPACITOR	SCART-ROUT(E)		Q2091	KTA1271/OY/-T	TRANSISTOR	TU9V	
C2473	NCB31HK-331X	C CAPACITOR	SCART-LOUT(E)		Q2092	KTC3875/YG/-X	TRANSISTOR	TU9V	
C2474	NCB31HK-331X	C CAPACITOR	SCART-ROUT(E)		Q2301	KTA1504/YG/-X	TRANSISTOR	CV-IN(E)	

## ■ Electrical parts list (Main board)

## Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	Q2311	KTA1504/YG/-X	TRANSISTOR	C-IN(E)	
	Q2481	KRC102S-X	DIGITAL.TR	FUNCTION(E)	
	Q2482	KRC102S-X	DIGITAL.TR	FUNCTION(E)	
	Q2483	KRA102S-X	DIGITAL.TR	BLANKING(E)	
	Q2484	KRC102S-X	DIGITAL.TR	BLANKING(E)	
	Q2701	KRC111S-X	TRANSISTOR		
	Q2702	KRC107S-X	DIGITAL.TR		
	Q2703	KRC102S-X	DIGITAL.TR		
	Q2801	KTA1504/YG/-X	TRANSISTOR	S-MUTE	
	Q2802	KRC102S-X	DIGITAL.TR	S-MUTE	
	Q2821	KRC102S-X	DIGITAL.TR	SAFETY	
	Q2861	KRC102S-X	DIGITAL.TR	STBY-LED	
	R2011	NRSA63J-102X	MG RESISTOR	TUNER	
	R2012	NRSA63J-102X	MG RESISTOR	TUNER	
	R2013	NRSA63J-682X	MG RESISTOR	TUNER	
	R2014	NRSA63J-682X	MG RESISTOR	TUNER	
	R2071	NRSA63J-474X	MG RESISTOR	RDS	
	R2072	NRSA63J-102X	MG RESISTOR	RDS	
	R2073	NRSA63J-103X	MG RESISTOR	RDS	
	R2074	NRSA63J-103X	MG RESISTOR	RDS	
	R2091	NRSA63J-472X	MG RESISTOR	TU9V	
	R2092	NRSA63J-103X	MG RESISTOR	TU9V	
	R2093	NRSA63J-821X	MG RESISTOR	TU9V	
	R2101	NRSA63J-750X	MG RESISTOR	DVD-118 CV/Y-C	
	R2102	NRSA63J-750X	MG RESISTOR	DVD-118 CV/Y-C	
	R2131	NRSA63J-750X	MG RESISTOR	DVD-114 G/CV-Y	
	R2132	NRSA63J-750X	MG RESISTOR	DVD-114 G/CV-Y	
	R2141	NRSA63J-750X	MG RESISTOR	DVD-112 B/CV-CB	
	R2142	NRSA63J-750X	MG RESISTOR	DVD-112 B/CV-CB	
	R2151	NRSA63J-750X	MG RESISTOR	DVD-110 R/C-CR	
	R2152	NRSA63J-750X	MG RESISTOR	DVD-110 R/C-CR	
	R2181	NRSA63J-0R0X	MG RESISTOR	VER.E	
	R2183	NRSA63J-0R0X	MG RESISTOR	VER.E	
	R2191	NRSA63J-0R0X	MG RESISTOR	VIDEO SW1	
	R2201	NRSA63J-750X	MG RESISTOR	CV-IN1(VCR)	
	R2202	NRSA63J-750X	MG RESISTOR	CV-IN2(DBS)	
	R2211	NRSA63J-750X	MG RESISTOR	C-IN1(VCR)	
	R2212	NRSA63J-750X	MG RESISTOR	C-IN2(DBS)	
	R2221	NRSA63J-750X	MG RESISTOR	Y-IN1(VCR)	
	R2222	NRSA63J-750X	MG RESISTOR	Y-IN2(DBS)	
	R2301	NRSA63J-221X	MG RESISTOR	CV-IN(E)	
	R2302	NRSA63J-561X	MG RESISTOR	CV-IN(E)	
	R2311	NRSA63J-221X	MG RESISTOR	C-IN(E)	
	R2312	NRSA63J-561X	MG RESISTOR	C-IN(E)	
	R2381	NRSA63J-103X	MG RESISTOR	SQUEEZE SW	
	R2382	NRSA63J-103X	MG RESISTOR	LETTER-BOX SW	
	R2383	NRSA63J-0R0X	MG RESISTOR	E(DRIVE1-SW)	
	R2385	NRSA63J-103X	MG RESISTOR	DRIVE2 SW	
	R2401	NRSA63J-750X	MG RESISTOR	CV-OUT	
	R2411	NRSA63J-750X	MG RESISTOR	SC-OUT	
	R2421	NRSA63J-750X	MG RESISTOR	SY-OUT	
	R2422	NRSA63J-750X	MG RESISTOR	SCART-CV/Y(E)	
	R2432	NRSA63J-750X	MG RESISTOR	SCART-G(E)	
	R2442	NRSA63J-750X	MG RESISTOR	SCART-B(E)	
	R2452	NRSA63J-750X	MG RESISTOR	SCART-R/C(E)	
	R2471	NRSA63J-151X	MG RESISTOR	SCART-LOUT(E)	
	R2472	NRSA63J-151X	MG RESISTOR	SCART-ROUT(E)	
	R2473	NRSA63J-471X	MG RESISTOR	SCART-LIN(E)	
	R2474	NRSA63J-471X	MG RESISTOR	SCART-RIN(E)	
	R2475	NRSA63J-184X	MG RESISTOR	SCART-LIN(E)	
	R2476	NRSA63J-184X	MG RESISTOR	SCART RIN(E)	
	R2477	NRSA63J-184X	MG RESISTOR	SCART-LIN(E)	
	R2478	NRSA63J-184X	MG RESISTOR	SCART-RIN(E)	
	R2481	NRSA63J-202X	MG RESISTOR	FUNCTION(E)	
	R2482	NRSA63J-202X	MG RESISTOR	FUNCTION(E)	
	R2483	NRSA63J-821X	MG RESISTOR	FUNCTION(E)	

△	Item	Parts number	Parts name	Remarks	Area
	R2484	NRSA63J-123X	MG RESISTOR	FUNCTION(E)	
	R2485	NRSA63J-101X	MG RESISTOR	BLANKING(E)	
	R2486	NRSA63J-103X	MG RESISTOR	BLANKING(E)	
	R2511	NRSA63J-104X	MG RESISTOR	HP	
	R2512	NRSA63J-103X	MG RESISTOR	HP	
	R2513	NRSA63J-164X	MG RESISTOR	HP	
	R2514	NRSA63J-103X	MG RESISTOR	HP	
	R2515	NRSA63J-473X	MG RESISTOR	HP	
	R2516	NRSA63J-330X	MG RESISTOR	HP	
	R2517	NRSA63J-390X	MG RESISTOR	HP	
	R2521	NRSA63J-104X	MG RESISTOR	HP	
	R2522	NRSA63J-103X	MG RESISTOR	HP	
	R2523	NRSA63J-164X	MG RESISTOR	HP	
	R2524	NRSA63J-103X	MG RESISTOR	HP	
	R2525	NRSA63J-473X	MG RESISTOR	HP	
	R2526	NRSA63J-330X	MG RESISTOR	HP	
	R2527	NRSA63J-390X	MG RESISTOR	HP	
	R2591	NRSA02J-681X	MG RESISTOR	HP	
	R2592	NRSA02J-681X	MG RESISTOR	HP	
	R2593	NRSA02J-681X	MG RESISTOR		
	R2594	NRSA02J-681X	MG RESISTOR		
	R2701	NRSA02J-681X	MG RESISTOR		
	R2702	NRSA63J-102X	MG RESISTOR		
	R2703	NRSA63J-103X	MG RESISTOR		
	R2704	NRSA63J-472X	MG RESISTOR		
	R2705	NRSA63J-223X	MG RESISTOR		
	R2706	NRSA63J-103X	MG RESISTOR		
	R2707	NRSA63J-221X	MG RESISTOR		
	R2708	NRSA02J-681X	MG RESISTOR		
	R2751	NRSA63J-103X	MG RESISTOR	NTSEL	
	R2752	NRSA63J-103X	MG RESISTOR	VCR-S/C	
	R2753	NRSA63J-103X	MG RESISTOR	DBS-S/C	
	R2754	NRSA63F-473X	MG RESISTOR	TH-DETECT	
	R2756	NRSA63J-103X	MG RESISTOR	KEY1	
	R2757	NRSA63J-103X	MG RESISTOR	KEY2	
	R2758	NRSA63J-103X	MG RESISTOR	HP	
	R2759	NRSA63J-103X	MG RESISTOR	TX	
	R2760	NRSA63J-103X	MG RESISTOR	RX	
	R2761	NRSA63J-103X	MG RESISTOR	CK	
	R2762	NRSA63J-103X	MG RESISTOR	SWOPEN	
	R2763	NRSA63J-103X	MG RESISTOR	SWUPDN	
	R2771	NRSA63J-103X	MG RESISTOR	VER.P-DOWN	
	R2772	NRSA63J-103X	MG RESISTOR	FOR MASK/ONETIM	
	R2801	NRSA63J-223X	MG RESISTOR	S-MUTE	
	R2802	NRSA63J-223X	MG RESISTOR	S-MUTE	
	R2821	NRSA63J-153X	MG RESISTOR	SAFETY	
	R2822	NRSA63J-223X	MG RESISTOR	SAFETY	
	R2823	NRSA63J-563X	MG RESISTOR	SAFETY	
	R2824	NRSA63J-393X	MG RESISTOR	SAFETY	
	R2825	NRSA63J-123X	MG RESISTOR	SAFETY	
	R2826	NRSA63J-393X	MG RESISTOR	SAFETY	
	R2827	NRSA63J-472X	MG RESISTOR	SAFETY(A5V)	
	R2831	NRSA63J-221X	MG RESISTOR		
	R2832	NRSA63J-221X	MG RESISTOR		
	R2833	NRSA63J-221X	MG RESISTOR		
	R2834	NRSA63J-221X	MG RESISTOR		
	R2835	NRSA63J-221X	MG RESISTOR		
	R2836	NRSA63J-221X	MG RESISTOR		
	R2837	NRSA63J-221X	MG RESISTOR		
	R2838	NRSA63J-221X	MG RESISTOR		
	R2839	NRSA63J-221X	MG RESISTOR		
	R2840	NRSA63J-221X	MG RESISTOR		
	R2841	NRSA63J-221X	MG RESISTOR		
	R2842	NRSA63J-221X	MG RESISTOR		
	R2843	NRSA63J-221X	MG RESISTOR		
	R2851	NRSA63J-102X	MG RESISTOR		

## ■ Electrical parts list (Main board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	R2852	NRSA63J-102X	MG RESISTOR		
	R2853	NRSA63J-102X	MG RESISTOR		
	R2854	NRSA63J-102X	MG RESISTOR		
	R2891	NRSA63J-101X	MG RESISTOR		
	R2892	NRSA63J-101X	MG RESISTOR		
	R2951	QRZ9005-220X	F RESISTOR	D5V	
	R2952	NRSA02J-1R5X	MG RESISTOR	D5V(DSP)	
	S2401	QSW0454-001	SWITCH	RGB/YC-NTSC/PAL	
	X2071	QAX0263-001Z	CRYSTAL	4.322MHZ	
	X2701	NAX0248-001X	C OSCILLATOR	8MHZ	

## ■ Electrical parts list (Front board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area
	C 401	QEK00JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 402	NCB21CK-105X	C CAPACITOR		
	C 421	NCB31CK-103X	C CAPACITOR		
	C 422	NCB31CK-103X	C CAPACITOR		
	C 423	NCB31CK-103X	C CAPACITOR		
	C 424	NCB31CK-103X	C CAPACITOR		
	C 425	NCB31CK-103X	C CAPACITOR		
	C 426	NCB31HK-471X	C CAPACITOR		
	C 427	NCB31HK-471X	C CAPACITOR		
	CN401	QGF1036F1-19	FFC/FPC CONNE	FRONT TO MAIN	
	CN403	QGA2001F1-05	CONNECTOR	FROM HP	
	D 401	SLR-342YC-T	LED	PGB LED	
	D 402	SELU2E10C-S	LED	ILUMINATION	
	D 403	SELU2E10C-S	LED	ILUMINATION	
	DI401	QLF0109-001	FL TUBE		
	IC401	MN101C35DKW	IC(MPU)		
	IC402	GP1UM271XK	IR DETECT UNIT		
	Q 401	KRC102S-X	DIGITAL.TR		
	Q 402	KRC102S-X	DIGITAL.TR		
	Q 403	KRC102S-X	DIGITAL.TR		
	Q 404	KRC102S-X	DIGITAL.TR		
	Q 405	DTC114TKA-X	TRANSISTOR		
	Q 406	DTC114TKA-X	TRANSISTOR		
	R 401	NRSA63J-102X	MG RESISTOR		
	R 402	NRSA63J-102X	MG RESISTOR		
	R 403	NRSA63J-102X	MG RESISTOR		
	R 404	NRSA63J-102X	MG RESISTOR		
	R 411	NRS181J-221X	MG RESISTOR		
	R 412	NRSA63J-821X	MG RESISTOR		
	R 413	NRSA63J-821X	MG RESISTOR		
	R 421	NRSA63J-391X	MG RESISTOR		
	R 422	NRSA63J-821X	MG RESISTOR		
	R 424	NRSA63J-104X	MG RESISTOR		
	R 425	NRSA63J-104X	MG RESISTOR		
	R 431	NRSA63J-332X	MG RESISTOR		
	R 432	NRSA63J-392X	MG RESISTOR		
	R 433	NRSA63J-682X	MG RESISTOR		
	R 434	NRSA63J-153X	MG RESISTOR		
	R 435	NRSA63J-332X	MG RESISTOR		
	R 436	NRSA63J-392X	MG RESISTOR		
	R 437	NRSA63J-682X	MG RESISTOR		
	R 438	NRSA63J-153X	MG RESISTOR		
	S 402	QSW0683-001Z	PUSH SWITCH		
	S 403	QSW0683-001Z	PUSH SWITCH		
	S 404	QSW0683-001Z	PUSH SWITCH		
	S 405	QSW0683-001Z	PUSH SWITCH		
	S 406	QSW0683-001Z	PUSH SWITCH		
	S 407	QSW0683-001Z	PUSH SWITCH		
	S 408	QSW0683-001Z	PUSH SWITCH		
	S 409	QSW0683-001Z	PUSH SWITCH		
	S 410	QSW0683-001Z	PUSH SWITCH		
	X 401	QAX0246-001Z	C RESONATOR	8MHZ	

## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	CN531	QGF1201F3-06	CONNECTOR				C5403	NCB31HK-471X	C CAPACITOR		
	CN591	QGF1016F2-29W	CONNECTOR				C5405	NCB31CK-104X	C CAPACITOR		
	CN592	QGF1016F2-08W	CONNECTOR				C5407	NEA71EM-475X	E.CAPACITOR.		
	C5101	NEA71CM-106X	E.CAPACITOR				C5408	NCB31HK-102X	C CAPACITOR		
	C5102	NCS31HJ-270X	C CAPACITOR				C5409	NEA71EM-475X	E.CAPACITOR.		
	C5103	NCS31HJ-270X	C CAPACITOR				C5421	NCB31HK-182X	C CAPACITOR		
	C5104	NCB31CK-104X	C CAPACITOR				C5422	NCB31HK-471X	C CAPACITOR		
	C5105	NCB31CK-104X	C CAPACITOR				C5423	NCB31HK-471X	C CAPACITOR		
	C5106	NEA71CM-106X	E.CAPACITOR				C5425	NCB31CK-104X	C CAPACITOR		
	C5107	NCB31CK-104X	C CAPACITOR				C5427	NEA71EM-475X	E.CAPACITOR.		
	C5108	NEA71CM-106X	E.CAPACITOR				C5428	NCB31HK-102X	C CAPACITOR		
	C5109	NCB31CK-104X	C CAPACITOR				C5429	NEA71EM-475X	E.CAPACITOR.		
	C5110	NCB31CK-104X	C CAPACITOR				C5441	NEA71HM-105X	E.CAPACITOR.		
	C5111	NEA71HM-225X	E.CAPACITOR				C5442	NCS31HJ-220X	C CAPACITOR		
	C5112	NCB31CK-104X	C CAPACITOR				C5443	NCB31CK-104X	C CAPACITOR		
	C5113	NEA71CM-106X	E.CAPACITOR				C5444	NEA71EM-475X	E.CAPACITOR.		
	C5114	NCB21CK-104X	C CAPACITOR				C5445	NCB31HK-102X	C CAPACITOR		
	C5115	NCS31HJ-100X	C CAPACITOR				C5446	NEA71EM-475X	E.CAPACITOR.		
	C5121	NCB31CK-104X	C CAPACITOR				C5451	NEA71HM-105X	E.CAPACITOR.		
	C5122	NEA71CM-106X	E.CAPACITOR				C5452	NCS31HJ-220X	C CAPACITOR		
	C5201	NEA70GM-227X	E.CAPACITOR				C5453	NCB31CK-104X	C CAPACITOR		
	C5202	NCB31HK-103X	C CAPACITOR				C5454	NEA71EM-475X	E.CAPACITOR.		
	C5203	NCB31HK-103X	C CAPACITOR				C5455	NCB31HK-102X	C CAPACITOR		
	C5204	NCB31HK-103X	C CAPACITOR				C5456	NEA71EM-475X	E.CAPACITOR.		
	C5205	NCB31HK-103X	C CAPACITOR				C5461	NEA71HM-105X	E.CAPACITOR.		
	C5206	NCB31HK-103X	C CAPACITOR				C5462	NCS31HJ-220X	C CAPACITOR		
	C5207	NCB31HK-103X	C CAPACITOR				C5463	NCB31CK-104X	C CAPACITOR		
	C5208	NCB31HK-103X	C CAPACITOR				C5464	NEA71EM-475X	E.CAPACITOR.		
	C5209	NCB31HK-123X	C CAPACITOR				C5465	NCB31HK-102X	C CAPACITOR		
	C5210	NCB31HK-103X	C CAPACITOR				C5466	NEA71EM-475X	E.CAPACITOR.		
	C5211	NCB31HK-103X	C CAPACITOR				C5471	NEA71HM-105X	E.CAPACITOR.		
	C5212	NCB31HK-103X	C CAPACITOR				C5472	NCS31HJ-220X	C CAPACITOR		
	C5213	NCB31HK-103X	C CAPACITOR				C5473	NCB31CK-104X	C CAPACITOR		
	C5214	NCB31AK-474X	C CAPACITOR				C5474	NEA71EM-475X	E.CAPACITOR.		
	C5215	NCB31HK-103X	C CAPACITOR				C5475	NCB31HK-102X	C CAPACITOR		
	C5216	NCB31HK-103X	C CAPACITOR				C5476	NEA71EM-475X	E.CAPACITOR.		
	C5217	NCB31HK-103X	C CAPACITOR				C5481	NEA71CM-106X	E.CAPACITOR		
	C5218	NCB31HK-103X	C CAPACITOR				C5482	NCS31HJ-560X	C CAPACITOR		
	C5219	NCB31HK-103X	C CAPACITOR				C5483	NCB31CK-104X	C CAPACITOR		
	C5220	NCB31HK-103X	C CAPACITOR				C5484	NCB31CK-104X	C CAPACITOR		
	C5221	NCB31HK-103X	C CAPACITOR				C5485	NCB31HK-223X	C CAPACITOR		
	C5222	NCB31HK-103X	C CAPACITOR				C5486	NCB31HK-472X	C CAPACITOR		
	C5223	NCB31HK-103X	C CAPACITOR				C5487	NEA71EM-475X	E.CAPACITOR.		
	C5224	NCB31HK-103X	C CAPACITOR				C5488	NEA71EM-475X	E.CAPACITOR.		
	C5241	NEA70GM-227X	E.CAPACITOR				C5491	NEA71CM-107X	E CAPACITOR		
	C5242	NCB31CK-104X	C CAPACITOR				C5492	NCB31HK-103X	C CAPACITOR		
	C5251	NEA70GM-227X	E.CAPACITOR				C5493	NEA71CM-107X	E CAPACITOR		
	C5252	NCB31CK-104X	C CAPACITOR				C5494	NCB31HK-103X	C CAPACITOR		
	C5253	NCB31CK-104X	C CAPACITOR				C5501	NCB31CK-104X	C CAPACITOR		
	C5261	NEA70GM-227X	E.CAPACITOR				C5502	NCB31CK-104X	C CAPACITOR		
	C5262	NCB31CK-104X	C CAPACITOR				C5503	NCB31HK-332X	C CAPACITOR		
	C5263	NCB31CK-104X	C CAPACITOR				C5504	NEA71CM-476X	E CAPACITOR		
	C5271	NEA70GM-227X	E.CAPACITOR				C5506	NEA71CM-476X	E CAPACITOR		
	C5272	NCB31CK-104X	C CAPACITOR				C5507	NCB31HK-223X	C CAPACITOR		
	C5273	NCB31CK-104X	C CAPACITOR				C5508	NEA71CM-476X	E CAPACITOR		
	C5301	NEA70GM-107X	E CAPACITOR				C5509	NCB31HK-223X	C CAPACITOR		
	C5302	NCB31HK-103X	C CAPACITOR				C5510	NEA71CM-476X	E CAPACITOR		
	C5303	NCS31HJ-101X	C CAPACITOR				C5511	NCB31HK-332X	C CAPACITOR		
	C5304	NCB31HK-103X	C CAPACITOR				C5512	NCB31CK-104X	C CAPACITOR		
	C5305	NCB31HK-103X	C CAPACITOR				C5513	NCB31CK-104X	C CAPACITOR		
	C5306	NCS31HJ-101X	C CAPACITOR				C5514	NCB31HK-223X	C CAPACITOR		
	C5307	NCB31CK-104X	C CAPACITOR				C5515	NEA71CM-476X	E CAPACITOR		
	C5308	NCB31CK-104X	C CAPACITOR				C5516	NCS31HJ-221X	C CAPACITOR		
	C5309	NCB31HK-103X	C CAPACITOR				C5517	NCS31HJ-221X	C CAPACITOR		
	C5401	NCB31HK-182X	C CAPACITOR				C5518	NCS31HJ-221X	C CAPACITOR		
	C5402	NCB31HK-471X	C CAPACITOR				C5521	NCB31CK-104X	C CAPACITOR		

## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	C5522	NEA71EM-475X	E.CAPACITOR.		
	C5523	NCB21HK-104X	C CAPACITOR		
	C5524	NCB31CK-104X	C CAPACITOR		
	C5531	NCB31HK-331X	C CAPACITOR		
	C5532	NEA71EM-475X	E.CAPACITOR.		
	C5541	NCB31HK-331X	C CAPACITOR		
	C5542	NEA71EM-475X	E.CAPACITOR.		
	C5551	NCB31HK-331X	C CAPACITOR		
	C5552	NEA71EM-475X	E.CAPACITOR.		
	C5561	NCB31HK-331X	C CAPACITOR		
	C5562	NEA71EM-475X	E.CAPACITOR.		
	C5571	NEA71EM-475X	E.CAPACITOR.		
	C5572	NCS31HJ-181X	C CAPACITOR		
	C5573	NCB31HK-681X	C CAPACITOR		
	C5574	NCB31CK-104X	C CAPACITOR		
	C5575	NCB31HK-272X	C CAPACITOR		
	C5576	NEA71EM-475X	E.CAPACITOR.		
	C5581	NEA71EM-475X	E.CAPACITOR.		
	C5582	NCS31HJ-181X	C CAPACITOR		
	C5583	NCB31HK-681X	C CAPACITOR		
	C5584	NCB31CK-104X	C CAPACITOR		
	C5585	NCB31HK-272X	C CAPACITOR		
	C5586	NEA71EM-475X	E.CAPACITOR.		
	C5601	NEA71EM-475X	E.CAPACITOR.		
	C5602	NEA71EM-475X	E.CAPACITOR.		
	C5603	NCS31HJ-470X	C CAPACITOR		
	C5604	NCB31HK-103X	C CAPACITOR		
	C5605	NEA71EM-475X	E.CAPACITOR.		
	C5611	NEA71EM-475X	E.CAPACITOR.		
	C5612	NEA71EM-475X	E.CAPACITOR.		
	C5613	NCS31HJ-470X	C CAPACITOR		
	C5614	NCB31HK-103X	C CAPACITOR		
	C5615	NEA71EM-475X	E.CAPACITOR.		
	C5621	NEA71EM-475X	E.CAPACITOR.		
	C5622	NEA71EM-475X	E.CAPACITOR.		
	C5623	NCS31HJ-470X	C CAPACITOR		
	C5624	NCB31HK-103X	C CAPACITOR		
	C5625	NEA71EM-475X	E.CAPACITOR.		
	C5631	NEA71EM-475X	E.CAPACITOR.		
	C5632	NEA71EM-475X	E.CAPACITOR.		
	C5633	NCS31HJ-470X	C CAPACITOR		
	C5634	NCB31HK-103X	C CAPACITOR		
	C5635	NEA71EM-475X	E.CAPACITOR.		
	C5641	NEA71EM-475X	E.CAPACITOR.		
	C5642	NEA71EM-475X	E.CAPACITOR.		
	C5643	NCS31HJ-470X	C CAPACITOR		
	C5644	NCB31HK-103X	C CAPACITOR		
	C5645	NEA71EM-475X	E.CAPACITOR.		
	C5651	NEA71EM-475X	E.CAPACITOR.		
	C5652	NEA71EM-475X	E.CAPACITOR.		
	C5653	NCS31HJ-470X	C CAPACITOR		
	C5654	NCB31HK-103X	C CAPACITOR		
	C5655	NEA71EM-475X	E.CAPACITOR.		
	C5661	NEA71EM-475X	E.CAPACITOR.		
	C5662	NEA71EM-475X	E.CAPACITOR.		
	C5663	NCB31HK-391X	C CAPACITOR		
	C5664	NCB31HK-103X	C CAPACITOR		
	C5665	NEA71EM-475X	E.CAPACITOR.		
	C5666	NCB31HK-103X	C CAPACITOR		
	C5667	NCB21CK-224X	C CAPACITOR		
	C5668	NCB21CK-224X	C CAPACITOR		
	C5669	NEA71EM-475X	E.CAPACITOR.		
	C5670	NEA71HM-105X	E.CAPACITOR.		
	C5721	NEA71EM-475X	E.CAPACITOR.		
	C5901	NEA70JM-227X	E.CAPACITOR.		
	C5902	NEA70JM-476X	E.CAPACITOR.		

△	Item	Parts number	Parts name	Remarks	Area
	C5903	NCB21CK-104X	C CAPACITOR		
	C5921	NCB21AK-225X	C CAPACITOR		
	C5922	NCB31HK-471X	C CAPACITOR		
	C5923	NCB21CK-105X	C CAPACITOR		
	C5931	NCB21AK-225X	C CAPACITOR		
	C5932	NCB31HK-471X	C CAPACITOR		
	C5933	NCB21CK-105X	C CAPACITOR		
	C5934	NCB31CK-104X	C CAPACITOR		
	C5935	NEA70GM-227X	E.CAPACITOR.		
	D5902	1SS355-X	DIODE		
	D5903	1SS355-X	DIODE		
	IC511	AK4586VQ	IC	CODEC	
	IC512	AK4382AVT-X	IC	DAC	
	IC521	DSPC56367PV150	IC	DSP	
	IC522	NC7SU04P5-X	IC(DIGITAL)		
	IC524	39VF0207CWHQ01	IC(MICRO C ROM)	F-ROM	
	IC525	IS63LV102410K-X	IC	RAM1	
	IC526	IS63LV102410K-X	IC	RAM2	
	IC527	IS63LV102410K-X	IC	RAM3	
	IC531	UPD784215AGC194	IC	DSP MICOM	
	IC532	NC7ST32P5-X	IC(DIGITAL)		
	IC533	NC7S04P5-X	IC(DIGITAL)		
	IC540	BA15218F-XE	IC	L/R	
	IC544	BA15218F-XE	IC	SL/SR	
	IC546	BA15218F-XE	IC	C/SB	
	IC548	BA15218F-XE	IC	SW	
	IC551	M61516FP	IC	VOLUME IC	
	IC557	BA15218F-XE	IC	L/R IN	
	IC560	BA15218F-XE	IC	L/R	
	IC562	BA15218F-XE	IC	SL/SR	
	IC564	BA15218F-XE	IC	C/SB	
	IC566	BA15218F-XE	IC	SW	
	IC592	MM1563DF-X	IC	R3.3V	
	IC593	MM1561KF-X	IC	D1.9V	
	J5521	GP1FA351RZ	OPT RECEIVER	DIGITAL IN	
	J5531	QNN0540-001	PIN JACK	AUDIO1/2 IN	
	Q 531	KRC107S-X	DIGITAL.TR		
	Q 532	KRC107S-X	DIGITAL.TR		
	Q5661	2SK1103-X	JUNCTION FET		
	Q5662	KRA104S-X	DIGITAL.TR		
	Q5663	KRC107S-X	DIGITAL.TR		
	Q5701	KRA104S-X	DIGITAL.TR		
	Q5702	KRC107S-X	DIGITAL.TR		
	Q5711	IMX9-W	TRANSISTOR	L/R	
	Q5712	IMX9-W	TRANSISTOR	SL/SR	
	Q5713	IMX9-W	TRANSISTOR	C/SB	
	Q5714	2SD2114K/VW/-X	CHIP TRANSISTOR	SW	
	Q5731	IMX9-W	TRANSISTOR	L/R	
	Q5732	IMX9-W	TRANSISTOR	SL/SR	
	Q5733	IMX9-W	TRANSISTOR	C/SB	
	Q5734	IMX9-W	TRANSISTOR	SW	
	R5101	NRSA02J-4R7X	MG RESISTOR		
	R5103	NRSA63J-470X	MG RESISTOR		
	R5104	NRSA63J-221X	MG RESISTOR		
	R5105	NRSA63J-221X	MG RESISTOR		
	R5106	NRSA63J-221X	MG RESISTOR		
	R5107	NRSA63J-221X	MG RESISTOR		
	R5108	NRSA63J-221X	MG RESISTOR		
	R5109	NRSA63J-221X	MG RESISTOR		
	R5110	NRSA63F-183X	MG RESISTOR	1%	
	R5111	NRSA02J-4R7X	MG RESISTOR		
	R5112	NRSA63J-0R0X	MG RESISTOR		
	R5113	NRSA63J-0R0X	MG RESISTOR		
	R5114	NRSA63J-101X	MG RESISTOR		
	R5121	NRSA63J-221X	MG RESISTOR		
	R5122	NRSA63J-221X	MG RESISTOR		

## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R5123	NRSA63J-221X	MG RESISTOR				R5327	NRSA63J-221X	MG RESISTOR		
	R5124	NRSA63J-221X	MG RESISTOR				R5328	NRSA63J-221X	MG RESISTOR		
	R5201	NRSA02J-0R0X	MG RESISTOR				R5329	NRSA63J-102X	MG RESISTOR		
	R5202	NRSA63J-473X	MG RESISTOR				R5330	NRSA63J-103X	MG RESISTOR		
	R5203	NRSA63J-103X	MG RESISTOR				R5401	NRSA63J-912X	MG RESISTOR		
	R5204	NRSA63J-103X	MG RESISTOR				R5402	NRSA63J-912X	MG RESISTOR		
	R5205	NRSA63J-103X	MG RESISTOR				R5403	NRSA63J-181X	MG RESISTOR		
	R5206	NRSA63J-221X	MG RESISTOR				R5404	NRSA63J-181X	MG RESISTOR		
	R5207	NRSA63J-221X	MG RESISTOR				R5405	NRSA63J-472X	MG RESISTOR		
	R5208	NRSA63J-221X	MG RESISTOR				R5406	NRSA63J-562X	MG RESISTOR		
	R5209	NRSA63J-221X	MG RESISTOR				R5409	NRSA63J-104X	MG RESISTOR		
	R5210	NRSA63J-103X	MG RESISTOR				R5410	NRSA63J-102X	MG RESISTOR		
	R5211	NRSA63J-221X	MG RESISTOR				R5411	NRSA63J-104X	MG RESISTOR		
	R5212	NRSA63J-103X	MG RESISTOR				R5421	NRSA63J-912X	MG RESISTOR		
	R5213	NRSA63J-221X	MG RESISTOR				R5422	NRSA63J-912X	MG RESISTOR		
	R5214	NRSA63J-221X	MG RESISTOR				R5423	NRSA63J-181X	MG RESISTOR		
	R5215	NRSA63J-221X	MG RESISTOR				R5424	NRSA63J-181X	MG RESISTOR		
	R5216	NRSA63J-473X	MG RESISTOR				R5425	NRSA63J-472X	MG RESISTOR		
	R5217	NRSA63J-473X	MG RESISTOR				R5426	NRSA63J-562X	MG RESISTOR		
	R5218	NRSA63J-221X	MG RESISTOR				R5429	NRSA63J-104X	MG RESISTOR		
	R5219	NRSA63J-473X	MG RESISTOR				R5430	NRSA63J-102X	MG RESISTOR		
	R5220	NRSA63J-473X	MG RESISTOR				R5431	NRSA63J-104X	MG RESISTOR		
	R5221	NRSA63J-103X	MG RESISTOR				R5441	NRSA63J-102X	MG RESISTOR		
	R5222	NRSA63J-105X	MG RESISTOR				R5442	NRSA63J-104X	MG RESISTOR		
	R5223	NRSA63J-473X	MG RESISTOR				R5443	NRSA63J-392X	MG RESISTOR		
	R5224	NRSA63J-473X	MG RESISTOR				R5444	NRSA63J-103X	MG RESISTOR		
	R5225	NRSA63J-473X	MG RESISTOR				R5445	NRSA63J-104X	MG RESISTOR		
	R5226	NRSA63J-473X	MG RESISTOR				R5446	NRSA63J-102X	MG RESISTOR		
	R5227	NRSA63J-473X	MG RESISTOR				R5447	NRSA63J-104X	MG RESISTOR		
	R5228	NRSA63J-473X	MG RESISTOR				R5451	NRSA63J-102X	MG RESISTOR		
	R5229	NRSA63J-473X	MG RESISTOR				R5452	NRSA63J-104X	MG RESISTOR		
	R5230	NRSA63J-473X	MG RESISTOR				R5453	NRSA63J-392X	MG RESISTOR		
	R5231	NRSA63J-103X	MG RESISTOR				R5454	NRSA63J-103X	MG RESISTOR		
	R5237	NRSA63J-0R0X	MG RESISTOR				R5455	NRSA63J-104X	MG RESISTOR		
	R5238	NRSA63J-0R0X	MG RESISTOR				R5456	NRSA63J-102X	MG RESISTOR		
	R5239	NRSA63J-0R0X	MG RESISTOR				R5457	NRSA63J-104X	MG RESISTOR		
	R5240	NRSA63J-0R0X	MG RESISTOR				R5461	NRSA63J-102X	MG RESISTOR		
	R5241	NRSA02J-0R0X	MG RESISTOR				R5462	NRSA63J-104X	MG RESISTOR		
	R5251	NRSA02J-0R0X	MG RESISTOR				R5463	NRSA63J-392X	MG RESISTOR		
	R5261	NRSA02J-0R0X	MG RESISTOR				R5464	NRSA63J-103X	MG RESISTOR		
	R5271	NRSA02J-0R0X	MG RESISTOR				R5465	NRSA63J-104X	MG RESISTOR		
	R5301	NRSA02J-0R0X	MG RESISTOR				R5466	NRSA63J-102X	MG RESISTOR		
	R5303	NRSA63J-822X	MG RESISTOR				R5467	NRSA63J-104X	MG RESISTOR		
	R5304	NRSA63J-432X	MG RESISTOR				R5471	NRSA63J-102X	MG RESISTOR		
	R5305	NRSA63J-103X	MG RESISTOR				R5472	NRSA63J-104X	MG RESISTOR		
	R5306	NRSA63J-103X	MG RESISTOR				R5473	NRSA63J-392X	MG RESISTOR		
	R5307	NRSA63J-103X	MG RESISTOR				R5474	NRSA63J-103X	MG RESISTOR		
	R5308	NRSA63J-103X	MG RESISTOR				R5475	NRSA63J-104X	MG RESISTOR		
	R5309	NRSA63J-822X	MG RESISTOR				R5476	NRSA63J-102X	MG RESISTOR		
	R5310	NRSA63J-822X	MG RESISTOR				R5477	NRSA63J-104X	MG RESISTOR		
	R5311	NRSA63J-822X	MG RESISTOR				R5481	NRSA63J-102X	MG RESISTOR		
	R5312	NRSA63J-103X	MG RESISTOR				R5482	NRSA63J-104X	MG RESISTOR		
	R5313	NRSA63J-432X	MG RESISTOR				R5483	NRSA63J-123X	MG RESISTOR		
	R5314	NRSA63J-432X	MG RESISTOR				R5484	NRSA63J-683X	MG RESISTOR		
	R5315	NRSA63J-432X	MG RESISTOR				R5485	NRSA63J-333X	MG RESISTOR		
	R5316	NRSA63J-221X	MG RESISTOR				R5486	NRSA63J-333X	MG RESISTOR		
	R5317	NRSA63J-221X	MG RESISTOR				R5487	NRSA63J-333X	MG RESISTOR		
	R5318	NRSA63J-221X	MG RESISTOR				R5488	NRSA63J-104X	MG RESISTOR		
	R5319	NRSA63J-221X	MG RESISTOR				R5489	NRSA63J-102X	MG RESISTOR		
	R5320	NRSA63J-221X	MG RESISTOR				R5490	NRSA63J-104X	MG RESISTOR		
	R5321	NRSA63J-221X	MG RESISTOR				R5501	NRSA63J-622X	MG RESISTOR		
	R5322	NRSA63J-221X	MG RESISTOR				R5502	NRSA63J-622X	MG RESISTOR		
	R5323	NRSA63J-221X	MG RESISTOR				R5503	NRSA63J-102X	MG RESISTOR		
	R5324	NRSA63J-221X	MG RESISTOR				R5504	NRSA63J-102X	MG RESISTOR		
	R5325	NRSA63J-221X	MG RESISTOR				R5505	NRSA63J-102X	MG RESISTOR		
	R5326	NRSA63J-221X	MG RESISTOR				R5521	NRSA63J-471X	MG RESISTOR		

## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	R5522	NRSA63J-222X	MG RESISTOR		
	R5531	NRSA63J-471X	MG RESISTOR		
	R5532	NRSA63J-184X	MG RESISTOR		
	R5533	NRSA02J-0R0X	MG RESISTOR		
	R5534	NRSA63J-184X	MG RESISTOR		
	R5541	NRSA63J-471X	MG RESISTOR		
	R5542	NRSA63J-184X	MG RESISTOR		
	R5544	NRSA63J-184X	MG RESISTOR		
	R5551	NRSA63J-471X	MG RESISTOR		
	R5552	NRSA63J-184X	MG RESISTOR		
	R5553	NRSA02J-0R0X	MG RESISTOR		
	R5554	NRSA63J-184X	MG RESISTOR		
	R5561	NRSA63J-471X	MG RESISTOR		
	R5562	NRSA63J-184X	MG RESISTOR		
	R5564	NRSA63J-184X	MG RESISTOR		
	R5571	NRSA63J-333X	MG RESISTOR		
	R5572	NRSA63J-273X	MG RESISTOR		
	R5573	NRSA63J-104X	MG RESISTOR		
	R5574	NRSA63J-103X	MG RESISTOR		
	R5575	NRSA63J-103X	MG RESISTOR		
	R5576	NRSA63J-102X	MG RESISTOR		
	R5581	NRSA63J-333X	MG RESISTOR		
	R5582	NRSA63J-273X	MG RESISTOR		
	R5583	NRSA63J-104X	MG RESISTOR		
	R5584	NRSA63J-103X	MG RESISTOR		
	R5585	NRSA63J-103X	MG RESISTOR		
	R5586	NRSA63J-102X	MG RESISTOR		
	R5601	NRSA63J-104X	MG RESISTOR		
	R5602	NRSA63J-102X	MG RESISTOR		
	R5603	NRSA63J-104X	MG RESISTOR		
	R5604	NRSA63J-472X	MG RESISTOR		
	R5606	NRSA63J-393X	MG RESISTOR		
	R5607	NRSA63J-104X	MG RESISTOR		
	R5611	NRSA63J-104X	MG RESISTOR		
	R5612	NRSA63J-102X	MG RESISTOR		
	R5613	NRSA63J-104X	MG RESISTOR		
	R5614	NRSA63J-472X	MG RESISTOR		
	R5616	NRSA63J-393X	MG RESISTOR		
	R5617	NRSA63J-104X	MG RESISTOR		
	R5621	NRSA63J-104X	MG RESISTOR		
	R5622	NRSA63J-102X	MG RESISTOR		
	R5623	NRSA63J-104X	MG RESISTOR		
	R5624	NRSA63J-332X	MG RESISTOR		
	R5625	NRSA63J-393X	MG RESISTOR		
	R5626	NRSA63J-104X	MG RESISTOR		
	R5631	NRSA63J-104X	MG RESISTOR		
	R5632	NRSA63J-102X	MG RESISTOR		
	R5633	NRSA63J-104X	MG RESISTOR		
	R5634	NRSA63J-332X	MG RESISTOR		
	R5635	NRSA63J-393X	MG RESISTOR		
	R5636	NRSA63J-104X	MG RESISTOR		
	R5641	NRSA63J-104X	MG RESISTOR		
	R5642	NRSA63J-102X	MG RESISTOR		
	R5643	NRSA63J-104X	MG RESISTOR		
	R5644	NRSA63J-332X	MG RESISTOR		
	R5645	NRSA63J-393X	MG RESISTOR		
	R5646	NRSA63J-104X	MG RESISTOR		
	R5651	NRSA63J-104X	MG RESISTOR		
	R5652	NRSA63J-102X	MG RESISTOR		
	R5653	NRSA63J-104X	MG RESISTOR		
	R5654	NRSA63J-332X	MG RESISTOR		
	R5655	NRSA63J-393X	MG RESISTOR		
	R5656	NRSA63J-104X	MG RESISTOR		
	R5661	NRSA63J-104X	MG RESISTOR		
	R5662	NRSA63J-471X	MG RESISTOR		
	R5663	NRSA63J-471X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R5664	NRSA63J-104X	MG RESISTOR		
	R5665	NRSA63J-103X	MG RESISTOR		
	R5666	NRSA63J-124X	MG RESISTOR		
	R5667	NRSA63J-104X	MG RESISTOR		
	R5668	NRSA63J-333X	MG RESISTOR		
	R5669	NRSA63J-472X	MG RESISTOR		
	R5670	NRSA63J-472X	MG RESISTOR		
	R5671	NRSA63J-473X	MG RESISTOR		
	R5672	NRSA63J-474X	MG RESISTOR		
	R5673	NRSA63J-103X	MG RESISTOR		
	R5674	NRSA63J-222X	MG RESISTOR		
	R5675	NRSA63J-104X	MG RESISTOR		
	R5676	NRSA63J-473X	MG RESISTOR		
	R5701	NRSA63J-222X	MG RESISTOR		
	R5702	NRSA63J-103X	MG RESISTOR		
	R5703	NRSA63J-105X	MG RESISTOR		
	R5711	NRSA63J-103X	MG RESISTOR		
	R5712	NRSA63J-103X	MG RESISTOR		
	R5713	NRSA63J-103X	MG RESISTOR		
	R5714	NRSA63J-103X	MG RESISTOR		
	R5715	NRSA63J-103X	MG RESISTOR		
	R5716	NRSA63J-103X	MG RESISTOR		
	R5717	NRSA63J-103X	MG RESISTOR		
	R5721	NRSA63J-474X	MG RESISTOR		
	R5731	NRSA63J-332X	MG RESISTOR		
	R5732	NRSA63J-332X	MG RESISTOR		
	R5733	NRSA63J-332X	MG RESISTOR		
	R5734	NRSA63J-332X	MG RESISTOR		
	R5735	NRSA63J-332X	MG RESISTOR		
	R5736	NRSA63J-332X	MG RESISTOR		
	R5737	NRSA63J-472X	MG RESISTOR		
	R5738	NRSA63J-472X	MG RESISTOR		
	R5911	NRSA02J-0R0X	MG RESISTOR		
	R5931	NRSA02J-0R0X	MG RESISTOR		
	R5951	NRSA02J-0R0X	MG RESISTOR		
	R5952	NRSA02J-0R0X	MG RESISTOR		
	R5953	NRSA02J-0R0X	MG RESISTOR		
	R5954	NRSA02J-0R0X	MG RESISTOR		
	R5955	NRSA02J-0R0X	MG RESISTOR		
	R5956	NRSA02J-0R0X	MG RESISTOR		
	R5957	NRSA02J-0R0X	MG RESISTOR		
	R5958	NRSA02J-0R0X	MG RESISTOR		
	R5959	NRSA02J-0R0X	MG RESISTOR		
	R5960	NRSA02J-0R0X	MG RESISTOR		
	R5961	NRSA02J-0R0X	MG RESISTOR		
	R5962	NRSA02J-0R0X	MG RESISTOR		
	R5963	NRSA02J-0R0X	MG RESISTOR		
	R5964	NRSA02J-0R0X	MG RESISTOR		
	R5965	NRSA02J-0R0X	MG RESISTOR		
	R5966	NRSA02J-0R0X	MG RESISTOR		
	R5967	NRSA02J-0R0X	MG RESISTOR		
	R5968	NRSA02J-0R0X	MG RESISTOR		
	R5969	NRSA02J-0R0X	MG RESISTOR		
	R5970	NRSA02J-0R0X	MG RESISTOR		
	R5971	NRSA02J-0R0X	MG RESISTOR		
	R5972	NRSA02J-0R0X	MG RESISTOR		
	R5973	NRSA02J-0R0X	MG RESISTOR		
	R5974	NRSA02J-0R0X	MG RESISTOR		
	R5975	NRSA02J-0R0X	MG RESISTOR		
	R5976	NRSA02J-0R0X	MG RESISTOR		
	R5981	NRSA02J-0R0X	MG RESISTOR		
	R5982	NRSA02J-0R0X	MG RESISTOR		
	R5983	NRSA02J-0R0X	MG RESISTOR		
	R5984	NRSA02J-0R0X	MG RESISTOR		
	R5985	NRSA02J-0R0X	MG RESISTOR		
	R5986	NRSA02J-0R0X	MG RESISTOR		



## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	R5987	NRSA02J-0R0X	MG RESISTOR		
	R5988	NRSA02J-0R0X	MG RESISTOR		
	TP531	QMV5005-002K	2P PLUG ASSY		
	X 511	NAX0322-001X	CRYSTAL		
	X 521	NAX0308-001X	RESONATOR	12.5MHZ	
	X 531	NAX0275-001X	1COSCILLATOR	6.14MHZ	

## ■ Electrical parts list (Amp. board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	CN701	QGF1016F3-08	CONNECTOR		
	CN702	QGF1201F3-06	CONNECTOR		
	CN703	QGB2510J1-14	CONNECTOR		
	C7011	NCB31HK-471X	C CAPACITOR		
	C7012	QEHR1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C7013	QEHR1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C7014	QEHR1HM-336Z	E CAPACITOR	33MF 20% 50V	
	C7015	QEHR1HM-107Z	E CAPACITOR	100MF 20% 50V	
	C7016	QEHR1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C7017	NCS31HJ-3R0X	C CAPACITOR		
	C7018	QEHR1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C7019	QEHR1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C7020	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7021	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7022	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7023	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7105	NCB31HK-103X	C CAPACITOR		
	C7106	NCB31CK-104X	C CAPACITOR		
	C7107	NCB31HK-103X	C CAPACITOR		
	C7108	QEHR2AM-226Z	E CAPACITOR	22MF 20% 100V	
	C7202	NCB31HK-471X	C CAPACITOR		
	C7203	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C7204	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7205	NCS31HJ-100X	C CAPACITOR		
	C7206	NCB31HK-221X	C CAPACITOR		
	C7207	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7208	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7209	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7210	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7222	NCB31HK-471X	C CAPACITOR		
	C7223	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C7224	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7225	NCS31HJ-100X	C CAPACITOR		
	C7226	NCB31HK-221X	C CAPACITOR		
	C7227	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7228	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7229	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7230	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7242	NCB31HK-471X	C CAPACITOR		
	C7243	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C7244	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7245	NCS31HJ-100X	C CAPACITOR		
	C7246	NCB31HK-221X	C CAPACITOR		
	C7247	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7248	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7249	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7250	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7251	QCB31HK-471Y	C CAPACITOR	470PF 10% 50V	
	C7252	QCB31HK-471Y	C CAPACITOR	470PF 10% 50V	
	C7262	NCB31HK-471X	C CAPACITOR		
	C7263	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C7264	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7265	NCS31HJ-100X	C CAPACITOR		
	C7266	NCB31HK-221X	C CAPACITOR		
	C7267	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7268	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7269	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7270	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7282	NCB31HK-471X	C CAPACITOR		
	C7283	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C7284	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7285	NCS31HJ-100X	C CAPACITOR		
	C7286	NCB31HK-221X	C CAPACITOR		
	C7287	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7288	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7289	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	

△	Item	Parts number	Parts name	Remarks	Area
	C7290	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7302	NCB31HK-471X	C CAPACITOR		
	C7303	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C7304	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7305	NCS31HJ-100X	C CAPACITOR		
	C7306	NCB31HK-221X	C CAPACITOR		
	C7307	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7308	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7309	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7310	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C7341	QEHR1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C7342	QEHR1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C7344	QEHR1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C7345	QCZ0313-105Z	C CAPACITOR	1.0MF	
	C7346	QCZ0313-105Z	C CAPACITOR	1.0MF	
	C7348	NCB31EK-104X	C CAPACITOR		
	C7351	QEHR1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C7511	QEHR1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C7512	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7513	QEHR1VM-476Z	E CAPACITOR	47MF 20% 35V	
	C7543	NCB31HK-103X	C CAPACITOR		
	C7544	NCB31HK-103X	C CAPACITOR		
	C7702	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	D7003	1SS133-T2	SI DIODE		
	D7004	1SS133-T2	SI DIODE		
	D7106	SLR-325MG-T	LED		
	D7107	SLR-325MG-T	LED		
	D7108	1SS133-T2	SI DIODE		
	D7109	1SS133-T2	SI DIODE		
	D7111	1SS133-T2	SI DIODE		
	D7112	MTZJ15C-T2	Z DIODE		
	D7113	1N5402M-20	DIODE		
	D7116	MTZJ15C-T2	Z DIODE		
	D7117	1N5402M-20	DIODE		
	D7201	1SS133-T2	SI DIODE		
	D7202	1SS133-T2	SI DIODE		
	D7203	1SS133-T2	SI DIODE		
	D7204	1SS133-T2	SI DIODE		
	D7205	1SS133-T2	SI DIODE		
	D7206	1SS133-T2	SI DIODE		
	D7351	11ES2-T4	DIODE		
	D7511	1SS133-T2	SI DIODE		
	D7512	1SS133-T2	SI DIODE		
	D7513	1SS133-T2	SI DIODE		
	D7514	MTZJ30C-T2	ZENER DIODE		
	D7515	MTZJ15C-T2	Z DIODE		
	D7516	MTZJ15C-T2	Z DIODE		
	D7517	1SS133-T2	SI DIODE		
	D7541	1SS133-T2	SI DIODE		
	D7542	1SS133-T2	SI DIODE		
	D7544	1SS133-T2	SI DIODE		
	D7545	1SS133-T2	SI DIODE		
	D7546	MTZJ15C-T2	Z DIODE		
	D7547	MTZJ6.2B-T2	ZENER DIODE		
△	IC701	STK404-130	IC		
	IC711	BA15218F-XE	IC		
	IC712	BA15218F-XE	IC		
△	IC721	STK403-430	IC		
	J 701	QNB0142-001	SPK TERMINAL		
	J 702	QNB0159-001	SPK TERMINAL		
	L7001	QQLZ003-1R0	INDUCTOR		
	L7002	QQLZ005-R45	INDUCTOR		
	L7201	QQR1340-001	CORELESS COIL		
	L7202	QQLZ005-R45	INDUCTOR		
	L7221	QQR1340-001	CORELESS COIL		
	L7222	QQLZ005-R45	INDUCTOR		

## ■ Electrical parts list (Amp. board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	L7241	QQR1340-001	CORELESS COIL				R7126	NRSA63J-103X	MG RESISTOR		
	L7242	QQLZ005-R45	INDUCTOR				R7127	NRSA63J-103X	MG RESISTOR		
	L7261	QQR1340-001	CORELESS COIL				R7128	NRSA63J-103X	MG RESISTOR		
	L7262	QQR0797-002	INDUCTOR				R7129	NRSA63J-103X	MG RESISTOR		
	L7281	QQR1340-001	CORELESS COIL				R7130	NRSA63J-103X	MG RESISTOR		
	L7282	QQR0797-002	INDUCTOR				R7131	NRSA63J-223X	MG RESISTOR		
	L7301	QQR1340-001	CORELESS COIL				R7132	NRSA63J-472X	MG RESISTOR		
	L7302	QQR0797-002	INDUCTOR				R7133	NRSA63J-103X	MG RESISTOR		
	MR701	QRZ0197-R22	C RESISTOR	1/1W			R7134	NRSA63J-332X	MG RESISTOR		
	Q 701	2SA1514K/RS/-X	CHIP TRANSISTOR				R7141	NRSA63J-473X	MG RESISTOR		
	Q 713	2SC3906K/RS/-X	CHIP TRANSISTOR				R7142	NRSA63J-472X	MG RESISTOR		
	Q 714	2SK2937	FET				R7143	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	Q 715	2SA1514K/RS/-X	CHIP TRANSISTOR				R7144	NRSA63J-472X	MG RESISTOR		
	Q 716	KTC3875/YG/-X	TRANSISTOR				R7145	QRZ9005-100X	F RESISTOR	10 1/4W	
	Q 717	2SK2937	FET				R7146	QRZ9005-100X	F RESISTOR	10 1/4W	
	Q 719	KRC111S-X	TRANSISTOR				R7147	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	Q 721	KTA1504/YG/-X	TRANSISTOR				R7151	NRSA63J-473X	MG RESISTOR		
	Q 722	KTA1504/YG/-X	TRANSISTOR				R7152	NRSA63J-473X	MG RESISTOR		
	Q 723	KTA1504/YG/-X	TRANSISTOR				R7153	NRSA63J-103X	MG RESISTOR		
	Q 724	KTA1504/YG/-X	TRANSISTOR				R7154	NRSA63J-103X	MG RESISTOR		
	Q 725	KTA1504/YG/-X	TRANSISTOR				R7161	NRSA63J-103X	MG RESISTOR		
	Q 726	KTA1504/YG/-X	TRANSISTOR				R7162	NRSA63J-103X	MG RESISTOR		
	Q 731	KTC3875/YG/-X	TRANSISTOR				R7163	NRSA63J-472X	MG RESISTOR		
	Q 732	KTC3265/Y/-X	TRANSISTOR				R7201	NRSA63J-332X	MG RESISTOR		
	Q 751	KRA104S-X	DIGITAL.TR				R7202	NRSA63J-681X	MG RESISTOR		
	Q 753	KRA104S-X	DIGITAL.TR				R7203	NRSA63J-182X	MG RESISTOR		
	Q 754	KTC3875/YG/-X	TRANSISTOR				R7204	NRSA63J-222X	MG RESISTOR		
	Q 755	KTC3875/YG/-X	TRANSISTOR				R7205	NRSA63J-563X	MG RESISTOR		
	Q 756	KTA1504/YG/-X	TRANSISTOR				R7206	NRSA63J-182X	MG RESISTOR		
	Q 757	KTC3875/YG/-X	TRANSISTOR				R7207	NRSA63J-563X	MG RESISTOR		
	Q 761	KTC3875/YG/-X	TRANSISTOR				R7208	QRT017J-R22	MF RESISTOR	5% 1/1W	
	RY701	QSK0127-001	RELAY				R7209	NRSA63J-102X	MG RESISTOR		
	RY702	QSK0127-001	RELAY				R7210	NRSA63J-153X	MG RESISTOR		
	RY703	QSK0127-001	RELAY				R7211	NRSA63J-473X	MG RESISTOR		
	RY704	QSK0127-001	RELAY				R7212	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R7016	NRSA63J-472X	MG RESISTOR				R7213	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7017	NRSA63J-563X	MG RESISTOR				R7214	NRSA63J-302X	MG RESISTOR		
	R7018	NRSA63J-563X	MG RESISTOR				R7215	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7019	NRSA63J-182X	MG RESISTOR				R7221	NRSA63J-332X	MG RESISTOR		
△	R7020	QRZ9015-221X	F.RESISTOR	220 1/4W			R7222	NRSA63J-681X	MG RESISTOR		
△	R7021	QRZ9015-221X	F.RESISTOR	220 1/4W			R7223	NRSA63J-182X	MG RESISTOR		
	R7022	NRSA63J-472X	MG RESISTOR				R7224	NRSA63J-222X	MG RESISTOR		
	R7023	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W			R7225	NRSA63J-563X	MG RESISTOR		
	R7024	NRSA63J-153X	MG RESISTOR				R7226	NRSA63J-182X	MG RESISTOR		
	R7025	NRSA63J-102X	MG RESISTOR				R7227	NRSA63J-563X	MG RESISTOR		
	R7026	NRSA63J-473X	MG RESISTOR				R7228	QRT017J-R22	MF RESISTOR	5% 1/1W	
	R7027	NRSA63J-563X	MG RESISTOR				R7229	NRSA63J-102X	MG RESISTOR		
	R7028	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W			R7230	NRSA63J-153X	MG RESISTOR		
	R7029	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W			R7231	NRSA63J-473X	MG RESISTOR		
	R7030	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W			R7232	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R7036	QRZ9005-470X	F RESISTOR	LOCATION:B7412			R7233	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7111	NRSA63J-563X	MG RESISTOR				R7234	NRSA63J-302X	MG RESISTOR		
	R7112	NRSA63J-103X	MG RESISTOR				R7235	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7113	NRSA63J-823X	MG RESISTOR				R7241	NRSA63J-332X	MG RESISTOR		
	R7114	NRSA63J-103X	MG RESISTOR				R7242	NRSA63J-681X	MG RESISTOR		
	R7115	NRSA63J-103X	MG RESISTOR				R7243	NRSA63J-182X	MG RESISTOR		
	R7116	NRSA63J-563X	MG RESISTOR				R7244	NRSA63J-222X	MG RESISTOR		
	R7117	NRSA63J-103X	MG RESISTOR				R7245	NRSA63J-563X	MG RESISTOR		
	R7118	NRSA63J-823X	MG RESISTOR				R7246	NRSA63J-182X	MG RESISTOR		
	R7119	NRSA63J-394X	MG RESISTOR				R7247	NRSA63J-563X	MG RESISTOR		
	R7120	NRSA63J-334X	MG RESISTOR				R7248	QRT017J-R22	MF RESISTOR	5% 1/1W	
	R7121	NRSA63J-221X	MG RESISTOR				R7249	NRSA63J-102X	MG RESISTOR		
	R7122	NRSA63J-221X	MG RESISTOR				R7250	NRSA63J-153X	MG RESISTOR		
	R7123	NRSA63J-475X	MG RESISTOR				R7251	NRSA63J-473X	MG RESISTOR		
	R7124	NRSA63J-475X	MG RESISTOR				R7252	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R7125	NRSA63J-103X	MG RESISTOR				R7253	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	

■ Electrical parts list (Amp. board) Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	R7254	NRSA63J-302X	MG RESISTOR		
	R7255	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7261	NRSA63J-332X	MG RESISTOR		
	R7262	NRSA63J-681X	MG RESISTOR		
	R7263	NRSA63J-182X	MG RESISTOR		
	R7264	NRSA63J-222X	MG RESISTOR		
	R7265	NRSA63J-563X	MG RESISTOR		
	R7266	NRSA63J-182X	MG RESISTOR		
	R7267	NRSA63J-563X	MG RESISTOR		
	R7268	QRT017J-R22	MF RESISTOR	5% 1/1W	
	R7269	NRSA63J-102X	MG RESISTOR		
	R7270	NRSA63J-153X	MG RESISTOR		
	R7271	NRSA63J-473X	MG RESISTOR		
	R7272	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R7273	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7274	NRSA63J-302X	MG RESISTOR		
	R7275	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7281	NRSA63J-332X	MG RESISTOR		
	R7282	NRSA63J-681X	MG RESISTOR		
	R7283	NRSA63J-182X	MG RESISTOR		
	R7284	NRSA63J-222X	MG RESISTOR		
	R7285	NRSA63J-563X	MG RESISTOR		
	R7286	NRSA63J-182X	MG RESISTOR		
	R7287	NRSA63J-563X	MG RESISTOR		
	R7288	QRT017J-R22	MF RESISTOR	5% 1/1W	
	R7289	NRSA63J-102X	MG RESISTOR		
	R7290	NRSA63J-153X	MG RESISTOR		
	R7291	NRSA63J-473X	MG RESISTOR		
	R7292	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R7293	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7294	NRSA63J-302X	MG RESISTOR		
	R7295	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7301	NRSA63J-332X	MG RESISTOR		
	R7302	NRSA63J-681X	MG RESISTOR		
	R7303	NRSA63J-182X	MG RESISTOR		
	R7304	NRSA63J-222X	MG RESISTOR		
	R7305	NRSA63J-563X	MG RESISTOR		
	R7306	NRSA63J-182X	MG RESISTOR		
	R7307	NRSA63J-563X	MG RESISTOR		
	R7308	QRT017J-R22	MF RESISTOR	5% 1/1W	
	R7309	NRSA63J-102X	MG RESISTOR		
	R7310	NRSA63J-153X	MG RESISTOR		
	R7311	NRSA63J-473X	MG RESISTOR		
	R7312	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R7313	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7314	NRSA63J-302X	MG RESISTOR		
	R7315	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R7342	QRZ9005-470X	F RESISTOR	47 1/4W	
	R7343	NRSA63J-333X	MG RESISTOR		
	R7351	NRSA63J-472X	MG RESISTOR		
	R7352	NRSA63J-103X	MG RESISTOR		
	R7501	NRSA63J-153X	MG RESISTOR		
	R7502	NRSA63J-103X	MG RESISTOR		
	R7504	NRSA63J-104X	MG RESISTOR		
	R7505	NRSA63J-472X	MG RESISTOR		
	R7511	NRSA63J-104X	MG RESISTOR		
	R7512	NRSA63J-101X	MG RESISTOR		
	R7513	NRSA63J-103X	MG RESISTOR		
	R7514	NRSA63J-104X	MG RESISTOR		
	R7515	NRSA63J-104X	MG RESISTOR		
	R7516	NRSA63J-103X	MG RESISTOR		
	R7517	NRSA63J-472X	MG RESISTOR		
	R7518	NRSA63J-472X	MG RESISTOR		
	R7520	NRSA63J-472X	MG RESISTOR		
	R7521	NRSA63J-104X	MG RESISTOR		
	R7522	NRSA63J-104X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R7523	NRSA63J-104X	MG RESISTOR		
	R7524	NRSA63J-104X	MG RESISTOR		
	R7525	NRSA63J-104X	MG RESISTOR		
	R7526	NRSA63J-104X	MG RESISTOR		
	R7527	NRSA63J-104X	MG RESISTOR		
	R7541	NRSA63J-183X	MG RESISTOR		
	R7542	NRSA63J-222X	MG RESISTOR		
	R7543	NRSA63J-103X	MG RESISTOR		
	R7544	NRSA63J-222X	MG RESISTOR		
	R7545	NRSA63J-103X	MG RESISTOR		
	R7546	NRSA63J-103X	MG RESISTOR		
	R7547	NRSA63J-223X	MG RESISTOR		
	R7901	QRL027J-391	OMF RESISTOR	390 5% 1/2W	
	R7902	QRL027J-391	OMF RESISTOR	390 5% 1/2W	
	TH701	QAD0146-103	N THERMISTOR		

## ■ Electrical parts list (DVD loading main board) Block No. 06

Item	Parts number	Parts name	Remarks	Area	Item	Parts number	Parts name	Remarks	Area
C 105	NEA70JM-476X	E.CAPACITOR			C 314	NCB31HK-331X	C CAPACITOR		
C 106	NEA70JM-476X	E.CAPACITOR			C 315	NCB31HK-471X	C CAPACITOR		
C 109	NCB31CK-104X	C CAPACITOR			C 316	NCB31HK-271X	C CAPACITOR		
C 110	NCS31HJ-221X	C CAPACITOR			C 317	NCS31HJ-121X	C CAPACITOR		
C 111	NCB31CK-104X	C CAPACITOR			C 318	NCB31CK-104X	C CAPACITOR		
C 112	NCB31CK-104X	C CAPACITOR			C 319	NCB31HK-102X	C CAPACITOR		
C 113	NEA70JM-226X	E CAPACITOR			C 320	NCB31HK-102X	C CAPACITOR		
C 115	NCB31CK-104X	C CAPACITOR			C 321	NCB31HK-102X	C CAPACITOR		
C 116	NCB31CK-104X	C CAPACITOR			C 322	NCB31HK-562X	C CAPACITOR		
C 117	NCB31CK-473X	C CAPACITOR			C 323	NCB31HK-102X	C CAPACITOR		
C 118	NCB31CK-273X	C CAPACITOR			C 324	NCB31CK-104X	C CAPACITOR		
C 119	NCB31HK-561X	C CAPACITOR			C 325	NCS31HJ-470X	C CAPACITOR		
C 120	NCB31HK-561X	C CAPACITOR			C 326	NCB31CK-183X	C CAPACITOR		
C 121	NCB31CK-104X	C CAPACITOR			C 327	NCB31HK-102X	C CAPACITOR		
C 122	NCS31HJ-120X	C CAPACITOR			C 328	NCB31CK-104X	C CAPACITOR		
C 123	NCB31CK-104X	C CAPACITOR			C 329	NCB31CK-103X	C CAPACITOR		
C 124	NCS31HJ-470X	C CAPACITOR			C 330	NCB31CK-104X	C CAPACITOR		
C 125	NCB31HK-271X	C CAPACITOR			C 331	NCB31CK-103X	C CAPACITOR		
C 126	NCB31CK-104X	C CAPACITOR			C 332	NCB21CK-105X	C CAPACITOR		
C 127	NCB31CK-104X	C CAPACITOR			C 333	NCB31CK-104X	C CAPACITOR		
C 128	NCB31CK-104X	C CAPACITOR			C 334	NCB31CK-104X	C CAPACITOR		
C 129	NCB31HK-472X	C CAPACITOR			C 337	NCB31CK-104X	C CAPACITOR		
C 135	NEA70JM-476X	E.CAPACITOR			C 338	NCB31CK-104X	C CAPACITOR		
C 137	NEA70GM-476X	E.CAPACITOR			C 339	NCB31CK-104X	C CAPACITOR		
C 138	NCB31CK-104X	C CAPACITOR			C 340	NCB31CK-104X	C CAPACITOR		
C 139	NCB31CK-104X	C CAPACITOR			C 341	NCB31CK-104X	C CAPACITOR		
C 141	NCB31CK-104X	C CAPACITOR			C 342	NCB31CK-104X	C CAPACITOR		
C 142	NCB31CK-104X	C CAPACITOR			C 343	NCB31CK-104X	C CAPACITOR		
C 143	NCB31CK-104X	C CAPACITOR			C 344	NCB31CK-104X	C CAPACITOR		
C 144	NCB31CK-103X	C CAPACITOR			C 345	NCB31CK-104X	C CAPACITOR		
C 146	NCB31CK-104X	C CAPACITOR			C 346	NCB31CK-104X	C CAPACITOR		
C 201	NEA70JM-226X	E CAPACITOR			C 347	NCB31CK-104X	C CAPACITOR		
C 203	NCB31CK-104X	C CAPACITOR			C 348	NCB31CK-104X	C CAPACITOR		
C 204	NCB31CK-104X	C CAPACITOR			C 349	NCB31CK-104X	C CAPACITOR		
C 205	NCS31HJ-121X	C CAPACITOR			C 350	NCB31CK-104X	C CAPACITOR		
C 207	NCB31HK-391X	C CAPACITOR			C 401	NEA70GM-476X	E.CAPACITOR		
C 208	NCB31HK-391X	C CAPACITOR			C 402	NCB31CK-104X	C CAPACITOR		
C 211	NCB31HK-223X	C CAPACITOR			C 403	NCB31CK-104X	C CAPACITOR		
C 212	NCB31CK-103X	C CAPACITOR			C 404	NCB31CK-104X	C CAPACITOR		
C 215	NCB31CK-104X	C CAPACITOR			C 405	NCB31CK-104X	C CAPACITOR		
C 216	NCB30JK-105X	C CAPACITOR			C 406	NCB31CK-104X	C CAPACITOR		
C 217	NCB31CK-104X	C CAPACITOR			C 407	NCB31CK-104X	C CAPACITOR		
C 218	NCB30JK-105X	C CAPACITOR			C 450	NCB31CK-104X	C CAPACITOR		
C 251	NCB31CK-104X	C CAPACITOR			C 501	NCB31CK-104X	C CAPACITOR		
C 252	NEA71AM-336X	E CAPACITOR			C 506	NCS31HJ-150X	C CAPACITOR		
C 253	NCB31CK-104X	C CAPACITOR			C 507	NCS31HJ-180X	C CAPACITOR		
C 255	NCB31CK-153X	C CAPACITOR			C 511	NEA70GM-476X	E.CAPACITOR		
C 256	NCB31CK-104X	C CAPACITOR			C 512	NCB31CK-104X	C CAPACITOR		
C 257	NCB31CK-104X	C CAPACITOR			C 514	NCB31CK-104X	C CAPACITOR		
C 258	NCB31CK-104X	C CAPACITOR			C 515	NCB31CK-104X	C CAPACITOR		
C 259	NCB31CK-104X	C CAPACITOR			C 516	NCB31CK-104X	C CAPACITOR		
C 260	NCB31CK-104X	C CAPACITOR			C 517	NCB31CK-104X	C CAPACITOR		
C 261	NCB31CK-104X	C CAPACITOR			C 518	NCB31CK-104X	C CAPACITOR		
C 262	NCB31CK-104X	C CAPACITOR			C 519	NCB31CK-104X	C CAPACITOR		
C 263	NCB31CK-104X	C CAPACITOR			C 520	NCB31CK-104X	C CAPACITOR		
C 264	NCB31CK-103X	C CAPACITOR			C 523	NCB31CK-104X	C CAPACITOR		
C 301	NCB31CK-104X	C CAPACITOR			C 524	NEA70GM-476X	E.CAPACITOR		
C 302	NCB31CK-104X	C CAPACITOR			C 527	NEA70GM-476X	E.CAPACITOR		
C 303	NCB31CK-104X	C CAPACITOR			C 528	NCB31CK-104X	C CAPACITOR		
C 304	NEA70GM-107X	E CAPACITOR			C 529	NCB31CK-104X	C CAPACITOR		
C 306	NEA70GM-107X	E CAPACITOR			C 531	NCB31CK-104X	C CAPACITOR		
C 308	NEA70GM-107X	E CAPACITOR			C 532	NCB31CK-104X	C CAPACITOR		
C 310	NCB31CK-104X	C CAPACITOR			C 533	NCB31CK-104X	C CAPACITOR		
C 311	NCB31HK-561X	C CAPACITOR			C 534	NCB31CK-104X	C CAPACITOR		
C 312	NCB31HK-561X	C CAPACITOR			C 535	NCB31CK-104X	C CAPACITOR		
C 313	NCB31HK-561X	C CAPACITOR			C 536	NCB31CK-104X	C CAPACITOR		

## ■ Electrical parts list (DVD loading main board) Block No. 06

△	Item	Parts number	Parts name	Remarks	Area
	C 539	NCB31CK-104X	C CAPACITOR		
	C 540	NCB31CK-104X	C CAPACITOR		
	C 541	NCB31CK-104X	C CAPACITOR		
	C 542	NCB31CK-104X	C CAPACITOR		
	C 543	NCB31CK-104X	C CAPACITOR		
	C 544	NCB31CK-104X	C CAPACITOR		
	C 545	NCB31CK-104X	C CAPACITOR		
	C 547	NCB31CK-104X	C CAPACITOR		
	C 548	NCB31CK-104X	C CAPACITOR		
	C 549	NEA70GM-476X	E.CAPACITOR		
	C 550	NCB31CK-104X	C CAPACITOR		
	C 554	NCB31CK-104X	C CAPACITOR		
	C 555	NCB31CK-104X	C CAPACITOR		
	C 557	NCB31CK-104X	C CAPACITOR		
	C 558	NCB11CK-105X	C CAPACITOR		
	C 569	NCB31CK-104X	C CAPACITOR		
	C 571	NEA70GM-476X	E.CAPACITOR		
	C 572	NCB31CK-104X	C CAPACITOR		
	C 573	NEA70GM-227X	E.CAPACITOR		
	C 578	NCB31CK-104X	C CAPACITOR		
	C 580	NEA70GM-476X	E.CAPACITOR		
	C 581	NEA70GM-227X	E.CAPACITOR		
	C 582	NEA70GM-476X	E.CAPACITOR		
	C 601	NEA70GM-476X	E.CAPACITOR		
	C 602	NEA70GM-476X	E.CAPACITOR		
	C 618	NCB31CK-104X	C CAPACITOR		
	C 619	NCB31CK-104X	C CAPACITOR		
	C 902	NCB31CK-104X	C CAPACITOR		
	C 904	NCB31CK-104X	C CAPACITOR		
	C 906	NCB31CK-104X	C CAPACITOR		
	C 908	NCB31CK-104X	C CAPACITOR		
	C 992	NCB31CK-104X	C CAPACITOR		
	C 993	NCB31CK-104X	C CAPACITOR		
	C 994	NCB31CK-104X	C CAPACITOR		
	C 995	NCB31CK-104X	C CAPACITOR		
	C 996	NCB31CK-104X	C CAPACITOR		
	C 997	NCB31CK-104X	C CAPACITOR		
	C 998	NCB31CK-104X	C CAPACITOR		
	CN101	QGF0522F1-30W	FFC/FPC CONNE	PU	
	CN201	QGF1016F2-15W	CONNECTOR	SP&STP	
	CN202	QGF1016F2-06W	CONNECTOR	LOADER	
	CN502	QGF1006F2-28W	CONNECTOR	SYSTEM	
	CN503	QGF1006F2-28W	CONNECTOR	VIDEO	
	D 101	RB521S-30-X	SB DIODE		
	D 202	1SS355-X	DIODE		
	IC101	AN8703FH-V	IC		
	IC201	BA5983FM-X	IC		
	IC251	BA6664FM-X	LSI		
	IC301	MN103S26EGA	IC		
	IC401	MN102L62GLF3	IC		
	IC451	S-93C66AFJ-X	IC		
	IC501	NDV8601VWA-BE	IC		
	IC505	K4S643232E-TC60	IC		
	IC509	SST39VF160-A75	IC (FLASH)		
	IC510	AK93C65AF-X	IC		
	IC511	LM1117MP1.8-X	IC		
	IC512	74LCX373MTC-X	IC(DIGITAL)		
	IC513	74LCX373MTC-X	IC(DIGITAL)		
	IC521	MM74HCT32MTC-X	IC		
	IC522	74LCX32MTC-X	IC(DIGITAL)		
	IC523	NC7SZ125P5-X	IC(DIGITAL)		
	K 101	NQR0007-002X	FERRITE BEADS		
	K 301	NQR0007-002X	FERRITE BEADS		
	K 302	NQR0007-002X	FERRITE BEADS		
	K 303	NQR0007-002X	FERRITE BEADS		
	K 304	NQR0007-002X	FERRITE BEADS		

△	Item	Parts number	Parts name	Remarks	Area
	K 401	NQR0007-002X	FERRITE BEADS		
	K 501	NQR0007-002X	FERRITE BEADS		
	K 504	NQR0007-002X	FERRITE BEADS		
	K 505	NQR0007-002X	FERRITE BEADS		
	K 507	NQR0007-002X	FERRITE BEADS		
	K 508	NQR0007-002X	FERRITE BEADS		
	K 509	NQR0007-002X	FERRITE BEADS		
	K 510	NQR0007-002X	FERRITE BEADS		
	K 513	NQR0007-002X	FERRITE BEADS		
	K 515	NRSA02J-0R0X	MG RESISTOR		
	K 518	NRSA02J-0R0X	MG RESISTOR		
	K 519	NQR0007-002X	FERRITE BEADS		
	K 520	NQR0007-002X	FERRITE BEADS		
	K 556	NRSA63J-0R0X	MG RESISTOR		
	K 557	NRSA63J-0R0X	MG RESISTOR		
	K 558	NRSA63J-0R0X	MG RESISTOR		
	K 559	NRSA63J-0R0X	MG RESISTOR		
	K 560	NRSA02J-0R0X	MG RESISTOR		
	K 561	NRSA02J-0R0X	MG RESISTOR		
	K 562	NRSA02J-0R0X	MG RESISTOR		
	K 563	NRSA02J-0R0X	MG RESISTOR		
	K 564	NRSA02J-0R0X	MG RESISTOR		
	K 565	NRSA02J-0R0X	MG RESISTOR		
	K 566	NRSA02J-0R0X	MG RESISTOR		
	K 567	NQR0007-002X	FERRITE BEADS		
	K 568	NRSA02J-0R0X	MG RESISTOR		
	K 569	NQR0007-002X	FERRITE BEADS		
	K 570	NRSA02J-0R0X	MG RESISTOR		
	K 571	NQR0007-002X	FERRITE BEADS		
	K 572	NRSA02J-0R0X	MG RESISTOR		
	K 573	NQR0007-002X	FERRITE BEADS		
	K 574	NRSA02J-0R0X	MG RESISTOR		
	K 575	NRSA02J-0R0X	MG RESISTOR		
	K 576	NRSA02J-0R0X	MG RESISTOR		
	K 577	NQR0007-002X	FERRITE BEADS		
	K 578	NRSA02J-0R0X	MG RESISTOR		
	K 579	NRSA02J-0R0X	MG RESISTOR		
	K 582	NRSA02J-0R0X	MG RESISTOR		
	K 586	NRSA02J-0R0X	MG RESISTOR		
	L 501	NQL044K-100X	INDUCTOR		
	Q 101	KTA1001/Y/-X	TRANSISTOR		
	Q 102	KTA1001/Y/-X	TRANSISTOR		
	Q 103	DTA144EE-X	DIGI TRANSISTOR		
	Q 501	2SB1424/QR/-W	TRANSISTOR		
	Q 502	2SC2412K/RS/-X	CHIP TRANSISTOR		
	R 101	NRSA63J-333X	MG RESISTOR		
	R 102	NRSA63J-223X	MG RESISTOR		
	R 103	NRSA63J-223X	MG RESISTOR		
	R 104	NRS125J-270X	MG RESISTOR		
	R 105	NRS125J-270X	MG RESISTOR		
	R 106	NRSA63J-273X	MG RESISTOR		
	R 107	NRSA63J-273X	MG RESISTOR		
	R 108	NRSA63J-222X	MG RESISTOR		
	R 109	NRSA63J-182X	MG RESISTOR		
	R 110	NRSA63J-333X	MG RESISTOR		
	R 111	NRVA63D-243X	RESISTOR		
	R 112	NRSA63J-822X	MG RESISTOR		
	R 113	NRSA63J-103X	MG RESISTOR		
	R 114	NRSA63J-0R0X	MG RESISTOR		
	R 115	NRSA63J-0R0X	MG RESISTOR		
	R 116	NRSA63J-0R0X	MG RESISTOR		
	R 117	NRSA63J-0R0X	MG RESISTOR		
	R 119	NRSA63J-2R2X	MG RESISTOR		
	R 120	NRSA63J-2R2X	MG RESISTOR		
	R 125	NRSA63J-105X	MG RESISTOR		
	R 126	NRSA63J-105X	MG RESISTOR		

## ■ Electrical parts list (DVD loading main board) Block No. 06

Item	Parts number	Parts name	Remarks	Area
R 127	NRSA63J-222X	MG RESISTOR		
R 128	NRS125J-1R0X	MG RESISTOR		
R 129	NRS125J-1R0X	MG RESISTOR		
R 130	NRSA63J-182X	MG RESISTOR		
R 201	NRSA63J-470X	MG RESISTOR		
R 202	NRS125J-1R0X	MG RESISTOR		
R 203	NRSA63J-0R0X	MG RESISTOR		
R 204	NRSA63J-273X	MG RESISTOR		
R 205	NRSA63J-273X	MG RESISTOR		
R 206	NRSA63J-303X	MG RESISTOR		
R 207	NRSA63J-473X	MG RESISTOR		
R 208	NRSA63J-223X	MG RESISTOR		
R 209	NRSA63J-223X	MG RESISTOR		
R 210	NRSA63J-242X	MG RESISTOR		
R 211	NRSA63J-242X	MG RESISTOR		
R 212	NRSA63J-103X	MG RESISTOR		
R 213	NRSA63J-103X	MG RESISTOR		
R 214	NRSA63J-103X	MG RESISTOR		
R 215	NRSA63J-103X	MG RESISTOR		
R 216	NRSA63J-912X	MG RESISTOR		
R 217	NRSA63J-201X	MG RESISTOR		
R 218	NRSA63J-221X	MG RESISTOR		
R 219	NRSA63J-183X	MG RESISTOR		
R 220	NRSA63J-243X	MG RESISTOR		
R 221	NRSA63J-682X	MG RESISTOR		
R 222	NRSA63J-103X	MG RESISTOR		
R 223	NRSA63J-912X	MG RESISTOR		
R 224	NRSA63J-103X	MG RESISTOR		
R 251	NRS125J-R47X	MG RESISTOR		
R 252	NRSA63J-2R2X	MG RESISTOR		
R 253	NRSA63J-0R0X	MG RESISTOR		
R 254	NRSA63J-203X	MG RESISTOR		
R 255	NRSA63J-103X	MG RESISTOR		
R 256	NRSA63J-470X	MG RESISTOR		
R 258	NRSA63J-0R0X	MG RESISTOR		
R 259	NRSA63J-103X	MG RESISTOR		
R 301	NRSA63J-473X	MG RESISTOR		
R 302	NRSA63J-473X	MG RESISTOR		
R 303	NRSA63J-473X	MG RESISTOR		
R 304	NRSA63J-473X	MG RESISTOR		
R 305	NRSA63J-473X	MG RESISTOR		
R 306	NRSA63J-473X	MG RESISTOR		
R 307	NRSA63J-473X	MG RESISTOR		
R 308	NRSA63J-0R0X	MG RESISTOR		
R 309	NRSA63J-473X	MG RESISTOR		
R 313	NRSA63J-473X	MG RESISTOR		
R 317	NRSA63J-473X	MG RESISTOR		
R 319	NRSA63J-473X	MG RESISTOR		
R 320	NRSA63J-105X	MG RESISTOR		
R 321	NRSA63J-473X	MG RESISTOR		
R 323	NRSA63J-473X	MG RESISTOR		
R 324	NRSA63J-473X	MG RESISTOR		
R 325	NRSA63J-123X	MG RESISTOR		
R 326	NRSA63J-473X	MG RESISTOR		
R 327	NRSA63J-105X	MG RESISTOR		
R 328	NRSA63J-183X	MG RESISTOR		
R 329	NRSA63J-473X	MG RESISTOR		
R 330	NRSA63J-473X	MG RESISTOR		
R 331	NRSA63J-473X	MG RESISTOR		
R 332	NRSA63J-102X	MG RESISTOR		
R 333	NRSA63J-183X	MG RESISTOR		
R 334	NRSA63J-102X	MG RESISTOR		
R 336	NRSA63J-273X	MG RESISTOR		
R 337	NRSA63J-273X	MG RESISTOR		
R 338	NRSA63J-472X	MG RESISTOR		
R 339	NRSA63J-472X	MG RESISTOR		

Item	Parts number	Parts name	Remarks	Area
R 340	NRSA63J-103X	MG RESISTOR		
R 341	NRSA63J-562X	MG RESISTOR		
R 402	NRSA63J-472X	MG RESISTOR		
R 405	NRSA63J-0R0X	MG RESISTOR		
R 411	NRSA63J-472X	MG RESISTOR		
R 413	NRSA63J-472X	MG RESISTOR		
R 414	NRSA63J-472X	MG RESISTOR		
R 421	NRSA63J-0R0X	MG RESISTOR		
R 422	NRSA63J-472X	MG RESISTOR		
R 423	NRSA63J-472X	MG RESISTOR		
R 424	NRSA63J-472X	MG RESISTOR		
R 427	NRSA63J-0R0X	MG RESISTOR		
R 428	NRSA63J-472X	MG RESISTOR		
R 501	NRSA63J-470X	MG RESISTOR		
R 512	NRSA63J-332X	MG RESISTOR		
R 521	NRSA63J-103X	MG RESISTOR		
R 531	NRSA63J-562X	MG RESISTOR		
R 532	NRSA63J-392X	MG RESISTOR		
R 533	NRSA63J-102X	MG RESISTOR		
R 534	NRSA63J-561X	MG RESISTOR		
R 535	NRSA63J-333X	MG RESISTOR		
R 536	NRSA63J-102X	MG RESISTOR		
R 541	NRSA63J-0R0X	MG RESISTOR		
R 543	NRSA63J-0R0X	MG RESISTOR		
R 544	NRSA63J-471X	MG RESISTOR		
R 547	NRSA63J-0R0X	MG RESISTOR		
R 548	NRSA63J-471X	MG RESISTOR		
R 549	NRSA63J-471X	MG RESISTOR		
R 550	NRSA63J-471X	MG RESISTOR		
R 551	NRSA63J-0R0X	MG RESISTOR		
R 552	NRSA63J-0R0X	MG RESISTOR		
R 553	NRSA63J-0R0X	MG RESISTOR		
R 565	NRVA63D-622X	CMF RESISTOR		
R 566	NRVA63D-132X	MG.RESISTOR		
R 570	NRSA63J-100X	MG RESISTOR		
R 573	NRSA63J-162X	MG RESISTOR		
R 574	NRSA63J-162X	MG RESISTOR		
R 575	NRSA63J-471X	MG RESISTOR		
R 576	NRSA63J-471X	MG RESISTOR		
R 578	NRSA63J-471X	MG RESISTOR		
R 579	NRSA63J-471X	MG RESISTOR		
R 580	NRSA63J-471X	MG RESISTOR		
R 583	NRSA63J-471X	MG RESISTOR		
R 584	NRSA63J-332X	MG RESISTOR		
R 608	NRSA63J-103X	MG RESISTOR		
R 655	NRSA63J-0R0X	MG RESISTOR		
R 738	NRSA63J-152X	MG RESISTOR		
R 739	NRSA63J-0R0X	MG RESISTOR		
R 740	NRSA63J-0R0X	MG RESISTOR		
R 991	NRSA63J-220X	MG RESISTOR		
X 301	NAX0542-001X	C RESONATOR		
X 401	NAX0543-001X	C RESONATOR		
X 571	NAX0513-001X	CRYSTAL		

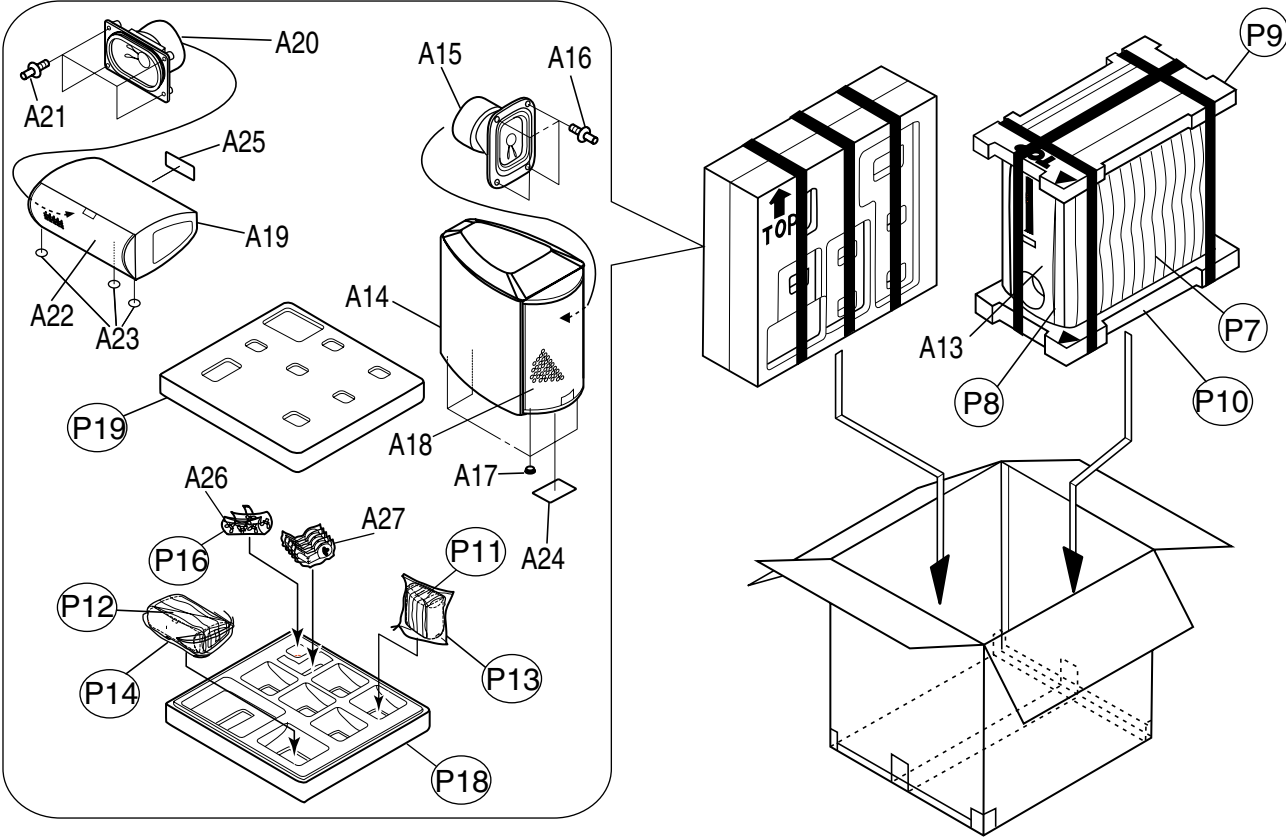
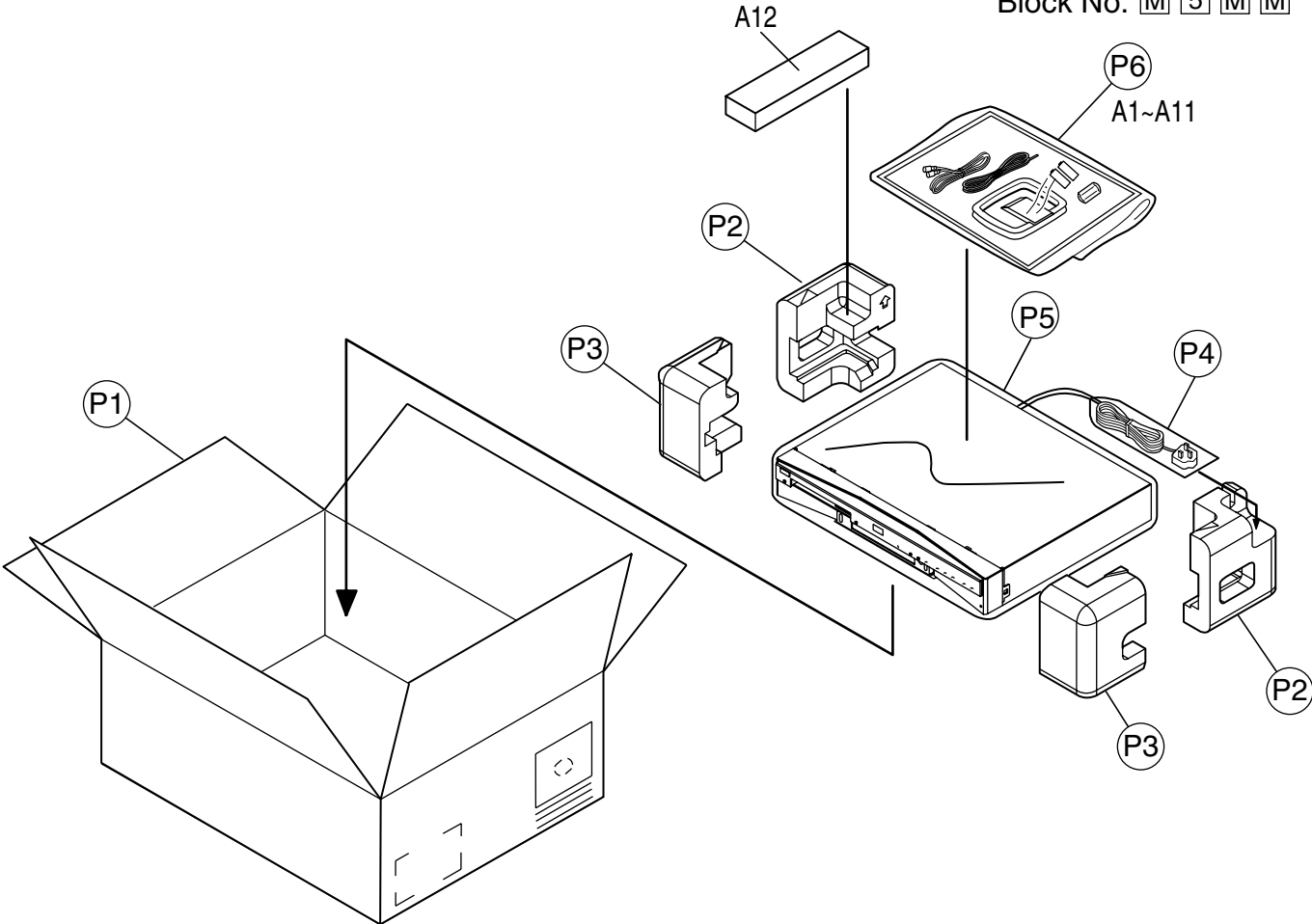
## ■ Electrical parts list (DVD loading switch board) Block No. 07

Item	Parts number	Parts name	Remarks	Area
CN 1	QGF1016F3-06	CONNECTOR		
S 1	QSW0910-002	SWITCH	DW DET SW	
S 2	QSW0910-002	SWITCH	OC DET SW	

Packing materials and accessories parts list

Block No. M 3 M M

Block No. M 5 M M





## ■ Parts list (Packing)

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	LV33822-001A	CARTON BOX	1	XV-THA75R	
	P 2	LV21359-002A	CUSHION(REAR)	1		
	P 3	LV21360-002A	CUSHION(FRONT)	1		
	P 4	QPA01203505	ENVELOPE	1		
	P 5	QPC06006015P	ENVELOPE	1	FOR SET	
	P 6	QPA02503505P	POLY BAG	1	FOR INST	
	P 7	8500047031	MIRROR MAT	1		
	P 8	8500048121	POLY BAG	1		
	P 9	8000050301	CUSHION(TOP)	1		
	P 10	8000050311	CUSHION(BTTM)	1		
	P 11	8500047041	MIRROR MAT	5	SIDE SPK	
	P 12	8500047051	MIRROR MAT	1	CENTRE SPK	
	P 13	8500032761	POLY BAG	5		
	P 14	8500032771	POLY BAG	1		
	P 16	8500035701	POLY BAG	1		
	P 18	8000050101	CUSHION A	1		
	P 19	8000050201	CUSHION B	1	PACK FOR 6 SPK	

## ■ Parts list (Accessories)

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0958-002A	INST.BOOK	1	ENG	B
		LVT0958-001A	INST.BOOK	1	GER,FRE,DUT	E
		LVT0958-004A	INST.BOOK	1	CZE,POL,HUN	EV
		LVT0958-003A	INST.BOOK	1	SWE,FIN,DAN,GER	EN
		LVT0958-003A	INST.BOOK	1	FRE,SPA,ITA	EN
	A 2	LV43390-001A	SUPPLEMENT SHEE	1		
	A 3	BT-54008-4	W.CARD	1		B,E,EN
	A 5	QAM0236-001	VIDEO CABLE	1		
	A 6	QAL0457-001	ANT.WIRE	1		
	A 7	QAL0476-001	AM LOOP ANT	1		
	A 8	-----	BATTERY	2		
	A 9	QQR0919-001	FERRITE CORE	1		
	A 10	VNA3000-204	REGISTER CARD	1		B
	A 11	BT-54012-3	W.CARD	1		EV
	A 12	RM-STHA75R	REMOCON UNIT	1		
	A 13	THA75E-SPBOX	SPK WITH BOX	1	SP-WA75	
	A 14	THA75RE-SPBOX	SPK WITH BOX	5	SP-XSA75	
	A 15	ER074004-02	SPEAKER	5		
	A 16	7011240001	SCREW	20		
	A 17	5600006101	SCREW CAP	20		
	A 18	9907400201	NET ASS'Y	5		
	A 19	THA75CRE-SPBOX	SPK WITH BOX	1	SP-XCA75	
	A 20	ER074004-02	SPEAKER	1		
	A 21	7011240001	SCREW	4		
	A 22	9907400301	NET ASS'Y	1		
	A 23	5600007601	RUBBER FOOT	3		
	A 24	6000192621	RATING LABEL	5		
	A 25	6000192521	RATING LABEL	1	FOR 001A	
	A 26	7200035902	BOLT SET	5		
	A 27	6400017301	BRACKET A	5		